Charles Costarella, Associate Teaching Professor

School of Engineering and Technology, University of Washington Tacoma Cherry Parkes CP-215, Tel: (253) 777-5387 costarec@uw.edu

Teaching Experience

Apr. 2020 - current: Associate Teaching Professor, School of Engineering and Technology, UW Tacoma

Sep. 2019 - 2020: Senior Lecturer, School of Engineering and Technology, UW Tacoma

Sep. 2018 – 2019: Full time Lecturer, School of Engineering and Technology, UW Tacoma

Sep. 2013 – 2018: Full time Lecturer, Institute of Technology, UW Tacoma

Sep. 2011 – 2013: Graduate Research Assistant, Institute of Technology, UW Tacoma

I regularly teach in the following SET programs: Bachelor of Science in Information Technology (BSIT), Masters of Cybersecurity and Leadership (MCL). I have also taught ad hoc and Summer teaching in the Bachelor of Computer Science and Systems (BSCSS).

My positions were responsible for delivery of undergraduate courses in Networking, Routing and Switching, System Administration, and Programming (C# .NET, ASP.NET, Java). I teach Cybersecurity Incident Response and Network and Internet Security in the Masters of Cybersecurity and Leadership Program, a Masters program split between SET and the Milgard Business School. I have served as faculty advisor for undergraduate readings, undergraduate research projects, undergraduate student industry internships in the BSIT program as well as graduate level projects and research in both the MCL and MSCSS programs.

Research area of interest

Network and web application security, honeypots, honeynets, and hardening honeynets against botnets. Currently I am involved in a research project designing and implementing a secure, widely distributed IDS/IPS involving a honeynet of IoT sensors using a blind, one way communication strategy.

Service to the University of Washington, UWT, SET school, and broader community

- **SET IT Assistant Professor search committee** I served on the search committee for hiring 3 new tenure track Associate Professor positions in BSIT and the newly starting MSIT programs. (2023-24)
- FCITC Chair Faculty Council on Information Technology and Cybersecurity I currently serve as chair the FCITC committee beginning fall of 2023 (2023-present)
- Ad hoc SET Hiring Procedures Committee (chair) Charged to formulate a detailed policy on conducting competitive faculty searches (from the appointment of a search committee to the faculty recommendation made to the dean). (2023-24)
- FCITC Faculty Council on Information Technology and Cybersecurity Joined the FCITC Committee as a representative member in (2022-2023)
- **SET Direct Admissions Committee** established a path for UWT admitted students to apply directly to the SET programs. (2022-23)
- **Tri-Campus Adjudication Committee** Joined the Adjudication Committee to arbitrate University/faculty disputes (2020-current)
- Dir of Libraries, UW Tacoma search committee I served on the search committee for the

Director of the Libraries (and Associate Dean) at UW Tacoma (2020-21)

- NTTFF Non-Tenure Track Faculty Forum Faculty representative for SET (2023-24)
- Executive Council Faculty representative for SET on UW Tacoma's Executive Council (2014-2020)
- GrayHat Group advisor Faculty advisor to the campus GrayHat Computer Security Group (2015-present)
- **SET Dean search committee** I served on the search committee for hiring the founding Dean of the School of Engineering and Technology (2016-17)
- ITNL lab Worked with other IT faculty to establish the ITNL (Information Technology Networking Lab) routing and switching lab to support the Networking, Cybersecurity, System Administration, and Routing and Switching courses taught in the BSIT and MCL programs. (we received generous donations from Cisco, Boeing, and the United States Navy)
- MSIT Course proposals I wrote the original course proposals and syllabi for MSIT courses in Cloud Computing, Networking, Automation, and DevOps set to begin fall of 2024.
- Mobile Digital Forensics course proposals Along with Det. John Bair of Tacoma PD, I cowrote the curriculum and designed course delivery for a 3-course series in Mobile Digital Forensics: TINFO-444, TINFO-445, and TINFO-446.
- **CyberRange lab** (in progress) Combining my interests in C#, .NET, security, and GrayHat hacking, I am currently working with other faculty and staff on developing virtualization and cloud computing knowlege to integrate teaching these topics into the IT and MCL programs
- ACCESS Mentor/Mentee Program I serve as a mentor in this campus program that pairs pre-major students with a faculty member in their chosen major to form a mentor/mentee relationship (2023-present)
- ABET Acreditation Data Gathering I served as an integral member in the BSIT program to gather data for courses and achieve the ABET approval for the program. There were two separate rounds of this process, due to ABET finding errors in the first data gathering procedure we conducted and had to repeat. (2021-22 and 2022-23)

Previous Classroom Teaching Experience

June 2013 to Aug. 2013: Adjunct Faculty, Computer Science Highline Community College, Des Moines, WA

Delivery of CSCI 100, Survey of Computing. Course covers a general survey of current hardware, software, systems software, and network technologies. Includes an introduction to programming, logic, and problem solving.

Aug. 1999 to June 2011: Adjunct Faculty, Computer Information Science Antelope Valley College, Lancaster, CA

Design and delivery of CIS-111, Introduction to Programming and Algorithms (I've delivered this course in Java, Pascal, Basic, and C), a first semester (CS1) course w/lecture and lab. Design and delivery of CIS-113, Data Structures, a second semester (CS2) programming course w/lecture and lab (I've taught this course in Java and C++). I have also taught Beginning and Advanced Word Processing courses (using Microsoft Word). One Summer session at AV College, I taught a section of "The History of Rock and Roll" in the Music Department.

Courses Taught

University of Washington Tacoma

Summer 2024 (planned)

TCSL 550 A - Network and Internet Security

TCSL 550 B – Network and Internet Security

Spring 2024

TINFO 452 A - Windows System Administration

TINFO 498 - Directed Readings (served as FA advisor for 1 student)

Tin Tin Chien – Advanced Networking, cont.

Winter 2024

TINFO 457 A – Unix/Linux System Administration

TINFO 200 A - Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 498 – Directed Reading (served as faculty advisor for 2 students)

Tin Tin Chien, Andy Hwang – Advanced Networking

TINFO 497 – Internship (served as faculty advisor for 1 student)

Arsh Chatha

Autumn 2023

TINFO 250 B - Foundations of Information Networking

TINFO 250 C - Foundations of Information Networking

TINFO 451 A - Routing and Switching

TINFO 498 – Directed Reading (served as faculty advisor for 1 student)

Alieu Samateh – ASP.NET Server Side Web Applications

Summer 2023

TCSL 550 A - Network and Internet Security

TINFO 452 A – Windows System Administration

TINFO 498 – Directed Reading (served as faculty advisor for 1 student)

James L. Harris

TINFO 497 – Internship (served as faculty advisor for 4 students)

James L. Harris, Kenton August Huppe, Alieu Samateh, Sangbeom Yoo

Spring 2023

TINFO 452 A - Windows System Administration

TINFO 498 – Directed Readings (advising 1 student)

C# .NET Programming

Ramirez, Maria – C# Unity Platform Game development

Winter 2023

TINFO 200 A – Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C – Programming II for ITS (C# .NET)

TINFO-431 A – Server Side Web Applications

Autumn 2022

TINFO 250 B – Foundations of Information Networking

TINFO 250 C - Foundations of Information Networking

TINFO 451 A - Routing and Switching

TINFO 497 – Internship (served as faculty advisor for 3 students)

Meyer, Brayden (2nd internship)

Monaco, Joe

Ramirez, Maria (2nd internship)

Summer 2022

TCSL 550 A – Network and Internet Security

TINFO 452 A – Windows System Administration

TINFO 497 – Internship (served as FA advisor for 2 students)

Meyer, Brayden

Ramirez, Maria

Spring 2022

TINFO 452 A - Windows System Administration

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Advanced Networking

Nguyen, Steven – CCNA3v7 R&S, Enterprise Networking, Security, and Automation Yahya, Mirzaei – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Winter 2022

TINFO 200 A – Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C - Programming II for ITS (C# .NET)

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Advanced Networking

Androussenko, Daniel – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Autumn 2021

TINFO 250 B - Foundations of Information Networking

TINFO 250 C – Foundations of Information Networking

TINFO 451 A – Routing and Switching

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Advanced Networking

Wang, Bo – EIGRP and OSPF dynamic routing protocols

Summer 2021

TCSL 550 A – Network and Internet Security

TINFO 452 A – Windows System Administration

Spring 2021

TINFO 452 A – Windows System Administration

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Advanced Networking

Haret, Faisal – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Wang, Bo – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Winter 2021

TINFO 200 A – Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C – Programming II for ITS (C# .NET)

TINFO 498 – Directed Readings (served as FA advisor for 5 students)

Advanced Networking

Abdullahi, Mansur – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Dang, Huy – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Issa, Hassan – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Martinez, Juan S. – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Muhebullah, Muheb – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Autumn 2020

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TINFO 250 B - Foundations of Information Networking
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TINFO 250 C - Foundations of Information Networking

TINFO 451 A – Routing and Switching

Summer 2020

TCSL 550 A – Network and Internet Security

TINFO 452 A – Windows System Administration

Spring 2020

TINFO 452 A – System Administration

TINFO 498 – Directed Readings (served as FA advisor for 3 students)

Advanced Networking

Casteen, Andrew – CCNA3v7 R&S, Enterprise Networking, Security, and Automation Steinbrugge, Jacob – CCNA3v7 R&S, Enterprise Networking, Security, and Automation Kakkada, Tho – CCNA3v7 R&S, Enterprise Networking, Security, and Automation

Winter 2020

TINFO 200 A – Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C - Programming II for ITS (C# .NET)

TINFO 498 – Directed Readings (served as FA advisor for 8 students)

Advanced Networking

Abucar, Fahad Aweis, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Ali, Elmi, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Dowdle, Richard, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Nasawang, Derek Jew, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Park, Ki Tae, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Pinyapap, Rasapon, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Steinbrugge, Jacob, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Williamds, Patrick, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Autumn 2019

TINFO 250 B – Foundations of Information Networking

TINFO 250 C – Foundations of Information Networking

TINFO 451 A – Routing and Switching

TINFO 498 – Directed Readings (served as FA advisor for 4 students)

Abuassi, William Socrates, 5 credits – CCNA3 Scaling Networks (NetAcad)

Smith, Michael, 5 credits – CCNA3 Scaling Networks (NetAcad)

Lam, T, 5 credits – CCNA3 Scaling Networks (NetAcad)

Turner, Trevor, 5 credits – CCNA3 Scaling Networks (NetAcad)

Summer 2019

TINFO 431 A – Server Side Web Applications

TINFO 452 A – System Administration

Spring 2019

TINFO 452 A – System Administration

TCSL 530 - Cybersecurity Strategies

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Advanced Networking

Thompson, Bryant, 5 credits – CCNA3 R&S, and Scaling Networks w/NetAcad

Winter 2019

TINFO 200 A – Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C – Programming II for ITS (C# .NET)

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Advanced Networking

Campbell, Caleb Evan, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Velasco, Clint Steven, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Autumn 2018

TINFO 250 B - Foundations of Information Networking

TINFO 250 C - Foundations of Information Networking

TINFO 451 A - Routing and Switching

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Mangual Velazquez, Argenis, 5 credits – ASP.NET Core MVC 2

Tueax-Leffel, Laurie Ann, 5 credits – ASP.NET Core MVC 2

Summer 2018

TINFO 452 A - System Administration

TINFO 497 – Internship (served as FA advisor for 4 students)

Eldridge, Cameron J, IT Senior

Mohamed, Saaid Bashir, IT Senior

Singh, Navi, IT Senior

VanWinkle, Jonathan Mark, IT Senior

Spring 2018

TINFO 452 A – System Administration

TCSL 530 - Cybersecurity Strategies

TINFO 497 – Internship (served as FA advisor for 2 students)

Sheikh Tijan Jobe, IT Senior

Soobin Kim, IT Senior

TINFO 498 – Directed Readings (served as FA advisor for 12 students)

Server Side Web Dev

Hailemariam, Metasebiya, 5 credits – ASP.NET Core MVC Server Side Web Applications Hamid, Seham, 5 credits – ASP.NET Core MVC Server Side Web Applications

.NET Core Dev

Hamid, Yusuf, 5 credits – C# .NET Data Structures

Amazon EC2 Elastic Cloud (AWS System Architect)

Hassan, Amin, 5 credits – Amazon EC2 Certified Systems Architect Exam prep

Hassan, Amin, 5 credits – Amazon EC2 Cloud Computing Foundations

Mohamed, Fatuma D, 5 credits – Amazon EC2 Certified Systems Architect Exam prep

Mohamed, Mohamed F, 5 credits – Amazon EC2 Cloud Computing Foundations

Advanced Networking

Howell, Aaron J, 5 credits – CCNA4 Connecting Networks w/NetAcad

Hubble, Dillon Patrick, 5 credits – CCNA4 Connecting Networks w/NetAcad

Nguyen, Duy Luan Thanh, 2 credits, - CCNA4 Connecting Networks w/NetAcad

Perumal, Rahul 5 credits, - CCNA4 Connecting Networks w/NetAcad

Williams, Kyle D, 5 credits – CCNA4 Connecting Networks w/NetAcad

TINFO 499 – Directed Research (served as FA advisor for 1 student)

Mohamed Mohamed F. – Amazon EC2 Certified Systems Architect Exam prep

Winter 2018

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 200 C - Programming II for ITS (C# .NET)

TINFO 431 A - Server Side Web Applications (ASP.NET MVC and ASP.NET Core 2.0)

TINFO 497 – Internship (served as FA advisor for 5 students)

Jones, Zachery Michael

Kang, Baldeep Singh

Kwong, Jason Sai Kit

Nguyen, Duy Luan Thanh

Rogers, Nathaniel David

TINFO 498 – Directed Readings (served as FA advisor for 13 students)

Advanced Networking

Chopovdya, Eugene V, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Ghura, Bikramjeet Singh Yashwinder, 3 credits - CCNA3 Scaling Networks (in NetAcad)

Grewal, Harkaran Singh, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Hubble, Dillon Patrick, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Jobe, Sheikh Tijan, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Jones, Zackary Michael, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Nguyen, Duy Luan Thanh, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Perumal, Rahul, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Santoyo, Matthew John, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Sun, Henry P, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Vanwinkle, Jonathan Mark, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Widger, Thomas P, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Williams, Kyle D, 5 credits - CCNA3 Scaling Networks (in NetAcad)

Autumn 2017

TINFO 250 A – Foundations of Information Networking

TINFO 250 B – Foundations of Information Networking

TINFO 451 A – Routing and Switching

TINFO 497 – Internship (served as FA advisor for 3 students)

Busa, Praful, 5 units-IT Senior

Perumal, Rahul, 5 credtis, IT Senior

Stiver, Jordan J, 5 credits, IT Senior

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Boenisch, Anne Kristine, 5 credits – CCNA2 Routing and Switching (military)

Rogers, Nathaniel David, 5 credits – CCNA3 Connecting Networks (military)

Summer 2017

TINFO 452 A – System Administration

TCSS 143 A – Fundamentals of Object Oriented Programming

TINFO 497 – Internship (served as FA advisor for 4 students)

Dixon, Everett, 5 units-IT Senior

Fulcer, Joshua Dean, 5 credtis, IT Senior

Singh, Charhat, 5 credits, IT Senior

Vong, Sinh Cun, 5 credits, IT Senior

TINFO 498 – Directed Readings (served as FA advisor for 2 students)

Fulcer, Joshua Dean, 5 credits – CCNA3 Scaling Networks (in NetAcad)

Hwang, Sze Yan, 5 credits – CCNA3 Scaling Networks (in NetAcad)

TINFO 499 – Directed Research (served as FA advisor for 1 student)

White, David, 5 credits – CCNA4 Connecting Networks (in NetAcad)

Spring 2017

TINFO 452 A – System Administration

TINFO 497 – Internship (served as FA advisor for 12 students)

Asha Isaac

Chala Kabira

Steven Luther

Cole Michaud

Huy Nguyen

Denis Omimbi

Liudmilla Palachuk

Melanie Randall

Kishan Vekaria

Sinh Vong

Ibrahim Wehlie

Zhongming Yu

TINFO 498 – Directed Readings (served as FA advisor for 5 students)

Daniel Bayless - CCNA2 Routing and Switching Essentials

Ethan Pham – CCNA4 Connecting Networks

Melanie Randall – ASP.NET MVC Web Development

Brad Sanders – CCNA4 Connecting Networks

Elliott Temple - Network+ Certification prep

Winter 2017

TINFO 200 B – Programming II for ITS (C# .NET)

TINFO 200 C - Programming II for ITS (C# .NET)

TINFO 431 A – Server Side Web Applications (ASP.NET MVC 5)

TINFO 497 – Internship (served as FA advisor for 3 students)

Logan Klashorst

Javaughn Lewis

Anthony Rockafield

TINFO 498 – Directed Readings (served as FA advisor for 15 students)

John Angiono – CCNA3, Scaling Networks w/NetAcad

Jimmy Cheng – CCNA3, Scaling Networks w/NetAcad

Sean Cresse – CCNA3, Scaling Networks w/NetAcad

Everett Dixson - CCNA3, Scaling Networks w/NetAcad

Virgilio Garcia – CCNA3, Scaling Networks w/NetAcad

Tracie Huynh – CCNA3, Scaling Networks w/NetAcad

Danielle Jarecki – CCNA3, Scaling Networks w/NetAcad

Kenny Kim – CCNA3, Scaling Networks w/NetAcad

Koby Nguyen – CCNA3, Scaling Networks w/NetAcad

Denis Omimbi – CCNA3, Scaling Networks w/NetAcad

Ethan Pham – CCNA3, Scaling Networks w/NetAcad

Anthony Rockafield – CCNA3, Scaling Networks w/NetAcad

Brad Sanders - CCNA3, Scaling Networks w/NetAcad

Noah Son – CCNA3, Scaling Networks w/NetAcad

David White - CCNA3, Scaling Networks w/NetAcad

Autumn 2016

TINFO 250 A – Foundations of Information Networking

TINFO 250 B – Foundations of Information Networking

TINFO 451 A – Routing and Switching

TINFO 497 – Internship (served as FA advisor for 11 students)

John Angiono

Don Batten

Tyler Busha

Seth Coad-Douglass

Brandon Evans

Andrew Groff

Javaughn Lewis

Ethan Pham

Frederick Proctor

Harpreet Singh

Prabhjot Singh

TINFO 498 - Directed Readings (served as FA advisor for 1 student)

Lessi Coulibaly - MCSA 70-410, 70-411, 70-412 prep

Summer 2016

TINFO 452 A - System Administration

TCSS 143 A – Fundamentals of Object Oriented Programming

TINFO 497 – Internship (served as FA advisor for 6 students)

Don Batten

Seth Coad-Douglass

Tracie Huynh

Taylor Lloyd

Harjaap Sandhu

Harpreet Singh

TCSS 498 - Readings in CSS (served as FA advisor for 1 student)

Sophie Nop

Spring 2016

TINFO 452 A - System Administration

TCSS 101 – Computer Science Principles

TINFO 497 – Internship (served as FA advisor for 12 students)

Humzah Abdol

Ahmed Ali

Brian Bui

Chance Cookston

David Dorch

Sameer Hakimi

Kuncil Jamal

Mike McCormick

Siddharth Saini

Jason Sexton

Amandeep Shergill

Igor Tekmenzhi

TINFO 498 – Directed Readings (served as FA advisor for 9 students)

Mark Garces – Advanced JavaScript

Alejandro Garcia Ochoa – Advanced JavaScript

Trenton Lawton – Advanced JavaScript

Senan Loukman – Advanced JavaScript

Zakariya Mohamed – Advanced JavaScript

Su Park – Advanced C# (concurrency, OO, .NET)

Siddharth Saini – SQL Server programming w/.NET and Entity Framework

Jason Sexton - CCNA3, Scaling Networks w/NetAcad

Sabeen Tahir – Advanced JavaScript

Winter 2016

TINFO 200 A- Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 431 A – Server Side Web Applications (ASP.NET MVC 5)

TINFO 497 – Internship (serving as FA advisor for 8 students)

David Dorch

Alejandro Garcia Ochoa

Sameer Hakimi

Trenton Lawton

Mike McCormick

Siddharth Saini

Amandeep Shergill

Adam Voelker

TINFO 498 – Directed Readings (served as FA advisor for 7 students)

Ahmed Ali – CCNA3, Scaling Networks w/NetAcad

Jason Erickson - CCNA3, Scaling Networks w/NetAcad

Brandon Evans – CCNA3, Scaling Networks w/NetAcad

Mark Garces – CCNA3, Scaling Networks w/NetAcad

Osaseen Gollen – Information Assurance, Business Management Topics

Senan Loukman – CCNA3, Scaling Networks w/NetAcad

Alexandro Maldonado – System Administration, Windows Server and RHEL

Autumn 2015

TINFO 250 A – Foundations of Information Networking

TINFO 250 B – Foundations of Information Networking

TINFO 451 A - Routing and Swtiching

TINFO 497 – Internship (served as FA advisor for 6 students)

Erika Baker - C#, ASP.NET MVC 5

Teodorico Divina - ASP.NET MVC 5

Jason Erickson - Network and Sysadmin, UW Tacoma

Trenton Lawton – Web design and Server Side Web Programming

Alexandro Maldonado – Database programming and server side web

Igor Tekmenzhi – Database programming and server side web

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Duke Hefner – System Administration, MCSA Windows Server and Linux+ prep

Summer 2015

TINFO 451 A – Routing and Switching

TINFO 497 – Internship (served as FA advisor for 1 student)

Sumitpal Rai – Network security

Spring 2015

TINFO 452 A – System Administration

TCSS 600 – Independent Study or Research (served as FA advisor for 1 student)

Swathika Balasundaram – Mobile Android Development w/GIS

TINFO 497 - Internship (served as FA advisor for 3 students)

Anitoliy Gritsenko

Myong Kim

Earl Switzer

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TINFO 498 - Directed Readings (served as FA advisor for 2 students)
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Sam Kim – ASP.Net MVC 5 Facebook app

Earl Switzer – System Administration topics

Winter 2015

TINFO 200 A- Programming II for ITS (C# .NET)

TINFO 200 B - Programming II for ITS (C# .NET)

TINFO 431 A – Server Side Web Applications (ASP.NET MVC 5)

TINFO 497 – Internship (served as FA advisor for 2 students)

latkit Ho

Scott Shaffer

Autumn 2014

TINFO 250 A – Foundations of Information Networking

TINFO 250 B – Foundations of Information Networking

TINFO 451 A – Routing and Swtiching

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Blake McIntyre – Windows Share Point

TINFO 499 - Undergraduate Research (served as FA advisor for 4 students)

Blake McIntyre - MS SQL Server

Joon Choi - ASP.Net MVC 5, security, dependency injection, TDD

JeeUn Yoo - ASP.Net MVC 5, security, dependency injection, TDD

Charles Fraychineaud – Designing CCNA Routing and Switching lab exercises

Summer 2014

TCSS 143 A – Fundamentals of Object Oriented Programming Theory and Application

TCSS 498 - Directed Readings in Computing and Software Systems

Khoi Le – Port Tetris game from Java to C# and also Python

TINFO 498 – Directed Readings (served as FA advisor for 6 students)

Joon Choi - ASP.Net MVC 5, build web site

JeeUn Yoo - ASP.Net MVC 5, build web site

Himchan Han – Network security topics

latkit Ho – Network security topics

Janet Kim – Network security topics

Lloyd Thomas – Network security topics

Spring 2014

TINFO 452 A – System Administration

TINFO 443 A – Digital Forensics (Mobile Digital Forensics)

TINFO 498 – Directed Readings (served as FA advisor for 1 student)

Charles Fraychineaud – Network and System Administration Lab Exercises

Winter 2014

TINFO 200 A- Programming II for ITS (C# .NET)

TINFO 200 B – Programming II for ITS (C# .NET)

TINFO 503 A – Designing and Executing Information Assurance and Cyber Security Strategies

Autumn 2013

TINFO 250 A – Foundations of Information Networking

TINFO 250 B – Foundations of Information Networking

TINFO 451 A – Routing and Swtiching

Summary of previous teaching, prior to joining faculty at UW Tacoma:

Summer 2013 (1 quarter total)

Highline College, CSCI 100 – Survey of Computing (taught Summer 2013)

Fall 1999 through Spring 2011 (13 years total)

Antelope Valley College

CIS 111 - Intro to Programming and Algorithms

(sections taught each Fall and each Spring semester from Fall 1999 through Spring 2011)

CIS 113 - Data Structures

(taught each Spring semester from 2005 through 2011)

CA 111 – Word Processing

(taught Fall 2009, Fall 2010)

CA 113 - Advanced Microsoft Word

(taught Fall 2010)

Education and Certifications

MSCSS Master of Science in Computer Science and Systems

University of Washington Tacoma, June 2013

Recipient NSF/SFS Scholarship for Service, Specialization in Cybersecurity

Research topic for Masters Capstone Project is "Hardening Honeynets against Honeypotaware Botnet Attacks". This project uses extensive virtualization technology for all servers, hosts, guests, and routers as well as honeypot, botnet, and command & control nodes. Other research areas are securing critical infrastructure ICS and SCADA systems, and integrating secure coding practices into the traditional computer science curriculum.

Network Engineering Certificate, University of Washington Professional and Continuing Education, 1 year certificate program completed June 2013.

ISRM Certificate in Information Assurance Risk Management, received from University of Washington iSchool, Seattle, Washington, received June 2012

Certification from NSA/DHS Center for Information Assurance and Cybersecurity, compliant with CNSS 4011 (INFOSEC) and 4012 (Senior Systems Managers), received June 2012

BSCS, Bachelor of Science in Computer Science Chapman University, Edwards Air Force Base, California, August 1999

Cerro Coso Community College, Ridgecrest, California (online) Fall 1998 to Spring 1999, No degree

A.S., Associate of Science, Computer Programming, and Computer Programming Certificate Antelope Valley College, Lancaster, California, May 1997

University of Southern California, Los Angeles, California Fall 1979 to Spring 1982

Major: Music, Studio Guitar Performance, No degree

University of California, Los Angeles Fall 1977 (1 quarter)

Major: Music, Guitar Performance, No degree

Antelope Valley College, Lancaster, California Fall 1976 to Spring 1979

Major: General Education, No degree

Research Published

Charles Costarella, Sam Chung, and Barbara Endicott-Popovsky, "Hardening Honeynets against Honeypot-Aware Botnet Attacks", *International Conference on Cloud Security Management (ICCSM 2015)*, *University of Washington Tacoma, USA, October 2015*.

BS Goda, JW Bair, CE Costarella, "Cell Phone Forensics", Proceedings of the 16th Annual Conference on Information Technology, 2015

T Thompson, M Dupuis, B Goda, Y Bai, C Costarella, M Zantua, "Systems thinking pedagogical design: Developing a veteran-centric masters degree in cybersecurity and leadership", *Journal of The Colloquium for Information Systems Security Education*, 2015.

https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=PRtEHhEAAAAJ

Professional and Business Experience

Sep. 2012 – March 2013: Information Assurance Intern, City of Seattle Washington. I reported directly to the CISO, Michael Hamilton. Tasks included daily network monitoring, incident response, and digital forensics investigations of internal and external attacks and misuse of municipal resources. Responsibilities included monitoring FireEye, Websense, F.R.E.D. forensics platform using FTK Toolkit, and misc. digital forensic software tools and procedures. I gave regular periodic briefings and reports on monitoring and investigation activities to the CISO.

Sep. 2001 – June 2013: CEO and CFO of Bronze Bunz Inc, a California S Corporation based in Palmdale, CA (DBA Bronze Bunz Tanning) with stores in Lancaster, CA and Palmdale, CA. Operational day to day management of a 2 store chain of tanning salons. Founded by my wife and myself in September 2001, we grew this business from a single location with 5 tanning units to our current holdings which include 2 retail locations covering almost 5,000 sq. feet in the Lancaster/Palmdale area operating more than 35 pieces of tanning equipment and employing 15 to 20 employees seasonally. We achieved annual gross sales of over 1 million dollars 4 times and operated as many as 4 locations concurrently (2007-8). We sold the business in June 2013.

Feb. 2001 – Mar. 2002: Professional Services Technical Consultant, Trintech Inc., San Mateo, CA Development and customization of online financial transaction processing software. Windows C++/MFC and Java (Swing and JSP) development including Java Servlets, RMI, and JDBC for transaction server running on Solaris with an Oracle DB. I interfaced with customers to gather requirements, define specifications, and worked to achieve total customer satisfaction with a highly customizable product in a multi-cultural environment which included clients in Brazil, Korea, Europe and the US. Other Professional Services duties included installation,

configuration, and documentation of OpenSSL to create and manage private keys and certificates, Apache Web Server (using mod_ssl for security), Jakarta Tomcat Application server for JSP pages and Java Servlets.

Jan. 2001: Java Corporate Trainer, Versata Inc., Oakland, CA
Design and delivery of professional training for Java developers using JSP and Java servlet
technologies to create transaction based website utilizing the Versata Studio, a VB-like tool for
creating transaction based websites.

Oct. 99 to Nov. 2000: Sr. Software Engineer, Ask Jeeves Inc., North Hollywood, CA Java Enterprise J2EE development of client/server virtual help desk network applications suite. HTML/JSP and Java Applet versions of a live chat client application. Client modules interfaced with multiple server applications via Java Servlets. Development of signed Java applet and ActiveX control to manipulate client browser. Ask Jeeves maintained a full test lab of client computers utilizing virtualization for multiple operating system test machines.

Apr. 97 to Oct. 99 (except for Jan. 98 to Apr. 98): Software Engineer, Symvionics Inc., United States Air Force Flight Test Center, Edwards AFB, CA Windows NT/Sun Solaris/SGI Irix parallel development of post flight test analysis tool. Development of user interface, data management, and analysis modules in C++ and Java on all three platforms. Additionally, I was in charge of writing software test descriptions for entire Air Force Flight Test Center Post Test Analysis System (APTAS) deliverable to perform acceptance testing at the Initial Operating Requirements (IOC) deadline.

Jan. 98 to Apr. 98: Software Engineer

Symvionics Inc., United States Air Force Flight Test Center, Edwards AFB, CA Windows NT development for USAF Flight Test Center Intranet. EDGE project was the development of a corporate intranet for Air Force Flight Test Center 412 Test Wing. Included was a training application for complete automation of the business process involved in applying and undertaking training. Design and development of client/server web application using Java, JavaScript, SQL, and HTML. Responsible for Netscape Enterprise Server admin and NT Server admin including source code control. Also in charge of design and implementation of the project's disaster recovery plan and Initial Operating Requirements (IOC) test documents.

Oct. 97 to Dec. 97: Software Engineer

Century Computer Consultants, Overland Park, Kansas

Modification and maintenance of real time Customer Event Distributor system in C, C++, and UNIX Shell script on IBM AIX platform for telecommunications customer World Com in Tulsa, OK.

1995 to Apr. 97: Software Engineer

Symvionics Inc., United States Air Force Flight Test Center, Edwards AFB, CA Interactive Analysis and Display System (IADS) project was NT/UNIX (SGI Irix) parallel development of real-time loads/flutter flight test analysis system. User interface development using Win32 API and XWindows/Motif toolkits. Integration with network communications and data management. Used Microsoft Visual C++ for NT development and standard UNIX tools (SGI C++, GCC, shell script, vi, make, grep, etc.) for SGI.

Tech Skills

Computer Languages

C++, C, C#, Java, JavaScript, HTML, Unix Shell Script, Windows PowerShell, R, Ada, Pascal, Basic, FORTRAN, Languages Taught in classroom: C# .NET, Java, ASP.NET, C++, Pascal, QBasic, PowerShell, bash, Cisco IOS

Platforms/Operating Systems

Windows, SGI Irix, Sun Solaris, IBM AIX, various Linux (Debian, Ubuntu, Fedora, Kali, CentOS, RHEL), Mac OS X, OpenBSD, Cisco IOS

Libraries and APIs

.NET, Java SE, ME, and EE (Java Servlets, JSP, JDBC, RMI), JFC Swing, Win32 API, Microsoft MFC C++ Class Library, STL, XWindows/Motif, OpenGL, YACL (Chapman Univ. C++ class lib)

Servers, Databases, IDEs, and RAD Development and Virtualization Tools

VMWare Workstation, Player, and Fusion, Oracle Virtual Box, Mac Bootcamp, NetBeans, Eclipse, Apache Tomcat, Sun JavaWebServer, iPlanet (Netscape) Enterprise Server, Microsoft Developer Studio, Visual Studio, Rational Rose, RapidApp (SGI), FaceMaker (XWindows/Motif), Versata Studio, Oracle 8.1.x and 8i, IBM DB2, WebSphere, Microsoft SQL Server 2000, 2005, 2008, Apache Web Server, IIS

System Administration, Network Engineering, and Security Tools

MS Windows Active Directory, OpenLDAP, BIND. MetaSploit Framework, Wireshark, nmap, Fiddler, etc.

Citizenship

Born June 29, 1958 Pasadena, California. I am a United States citizen and held a Department of Defense secret level security clearance during my work at the United States Air Force Flight Test Center, Edwards Air Force Base, 1995-1999.

Professional Organizations and Affiliations

Member of GRIT Computer Security Professsionals group, joined April 2024
Member of CTIN Computer Investigators, joined December 2012
Member of The Honeynet Project, Pacific Northwest Chapter, joined March 2012
Member of ISSA, Puget Sound Chapter, joined September 2011
Member of InfraGard, Seattle Chapter, joined September 2011
Member of The Agora, joined August 2011

Professional Training and Conferences

April 2023 - Teaching 101 Certification to Teach Online and Hybrid Courses at UW

Dec 2022 – current (ongoing) – PluralSight online training annual subscription. Courses on Full Stack Web Development C# .NET programming and System Administration to support my teaching in those areas.

May 2017 – Cisco CCNA Routing and Switching, CCNA Security (renewal training)
September 2014 – Cisco NetAcad Certified Instructor for CCNA1, CCNA2, CCNA3, CCNA4
September 2014 – Training Camp, Dallas Texas, Cisco CCNA Routing and Switching, CCNA

Security, and CCENT certifications. 3 certifications earned.

March 2013 – CTIN Conference, Computer Technology Investigators Network, Seatac, WA. Certificate earned.

February 2013 - CISSP Boot Camp and Exam from IP3, with Michael Hamilton, CISO, City of Seattle. Training Certificate Issued.

February 2013 – DHS ICS-CERT, Industrial Control Systems Cybersecurity 301 Advanced Training, Idaho National Laboratory, Idaho Falls, ID. Certificate Issued.

January 2013, and 2012 – National Science Foundation Scholarship for Service Cybersecurity Conference and Job Fair, Washington DC

December 2012 – BSides Seattle, sponsored by Microsoft, IOActive, others, Seattle, Washington

September 2012 – Emerald Down, sponsored by PNWER (Pacific Northwest Economic Region) Cyber Security Regional Response and Resiliency Seminar, Seattle Washington

July 2012 – DEFCON, Las Vegas, Nevada

April 2012 – Attended CISSP exam prep review (sponsored by ISSA, Puget Sound Chapter), Mercer Island, Washington

March 2012 – Served as White Team judge at PRCCDC, Pacific Rim Collegiate Cyber Defense Competition, Highline Community College, Washington

March 2012 – ICIW 2012, 7th International Conference on Information Warfare and Security, University of Washington Seattle

March 2012 – The Honeynet Project Conference and Workshops, Palo Alto California Workshops attended: Introduction to Honeynets and the Honeywall, David Watson

June 2006, 2005, and 1999 - JavaOne, Moscone Center, San Francisco, CA Sun's Worldwide Java Programming Conference & Training

Jan. 2001 – Versata University, Versata Inc., Oakland, CA Versata Studio 5.0 E-Business Automation System Training

Apr. 1997 - SmartSoft Internet Developer Training, Huntington Beach, CA Intermediate & Advanced Java Programming

Nov. 1996 - SIGS C++ World, Dallas, TX
Object Oriented Programming Conference & Training

Feb. 1996 - Silicon Graphics Technical Education, On-site: Edwards AFB, CA Real Time Programming Course

Feb. 1996 - Silicon Graphics Technical Education, On-site: Edwards AFB, CA Parallel Programming Course

Jan. 1996 - Rational Software Corporation, On-site: Edwards AFB, CA Object Oriented Methodology Course