

Elvis Tang

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SUMMARY

Embedded Systems and Cybersecurity Specialist with a Bachelor's degree in Computer Engineering from Cal Poly Pomona. Experienced in developing sensor fusion systems for unmanned ground vehicles through a senior project sponsored by Lockheed Martin. Proficient in designing secure, efficient embedded systems and applying cybersecurity principles to protect critical infrastructures. Skilled in hardware-software integration, real-time system optimization, and debugging. Knowledgeable in Agile workflows and hands-on with programming languages like C/C++ and Python. Adept at problem-solving, collaborating with multidisciplinary teams, and delivering solutions that align with technical and business objectives.

EXPERIENCE

Instructor

November 2023 – Present

Coding Minds Academy

Irvine, CA

- Taught programming and software development concepts to students aged 6–18, fostering a strong foundation in coding.
- Developed and delivered engaging curricula for Python, JavaScript, and game development courses tailored to varying skills.
- Collaborated with parents and staff to track student progress and provide personalized learning strategies.
- Introduced students to tools like Git, Visual Studio Code, and Scratch to familiarize them with industry-standard practices.

Embedded Systems Engineer Intern

August 2022 – May 2023

Lockheed Martin

Los Angeles, CA

- Contributed to the optimization of embedded systems for unmanned ground vehicles, focusing on sensor fusion.
- Debugged and programmed embedded software in C/C++, ensuring reliability and efficient hardware-software integration.
- Implemented communication protocols (UART, SPI, I2C) to support seamless hardware interfacing.
- Documented system designs and test procedures, collaborating with cross-functional teams to meet project deadlines.

PROJECTS

Logging Hacker Information | Azure Sentinel

- Implemented Azure Sentinel SIEM solution to proactively detect and respond to cyber threats in real-time.
- Integrated honeypot with Azure Sentinel MAP to gather attack data and visualize cyber threats, enhancing response.
- Utilized real-time global attack visualization and Microsoft Threat Intelligence to strengthen security measures.

Sensor Fusion Algorithms and Tracking for Autonomous Systems | Lockheed Martin

- Designed algorithms to integrate LiDAR, camera, and IMU data for enhanced awareness in unmanned ground vehicles.
- Validated real-time sensor fusion systems for accuracy and reliability in dynamic environments.
- Collaborated with Lockheed Martin to optimize performance and ensure industry-standard compliance.

Authenticated Encryption / Hash | Romulus

- Developed Romulus AE and hashing algorithms using the Skinny-128-384+ tweakable block cipher for strong security.
- Implemented Romulus-N, Romulus-M, and Romulus-T for efficient, nonce-resilient cryptographic processing.
- Integrated Romulus-H hash function to ensure collision resistance and provable security in cryptographic applications.

Data Visualization | Identification of Statistically Significant Factors Contributing to Severity of Car Accidents

- Analyzed Highway Safety data using machine learning and regression to identify crash severity factors.
- Applied multinomial and binary logit regression to identify key contributors like light conditions in crash severity.
- Concluded that accident severity, light conditions, and intersection population impact the likelihood of hit-and-run incidents.

EDUCATION

Security+ SY0-701 | CompTIA

Google Cybersecurity Professional Certificate | Coursera

Bachelor's Degree in Computer Engineering | California Polytechnic University, Pomona

August 2019 – May 2023

Associate's Degree in Science Transfer (Mathematics) | Cypress College

August 2016 – May 2019

Associate's Degree in Arts (Math and Science) | Cypress College

August 2016 – May 2019

TECHNICAL SKILLS

Embedded Systems: Embedded Software Development, Real-Time Systems, Hardware-Software Integration, Sensor Fusion, Communication Protocols (UART, SPI, I2C), Debugging, Power Management, Microcontrollers, Microprocessors

Cybersecurity: Azure Sentinel, SIEM Solutions, Threat Detection, Incident Response, Network Security, Penetration Testing, Vulnerability Management, Firewalls, IDS/IPS, Cloud Security, Honeypots, DDoS Protection, Risk Assessment

Cryptography: Romulus AE, Romulus-H, Skinny-128-384+ Block Cipher, Encryption/Hash Algorithms

Programming & Scripting: Python, JavaScript, R, MATLAB, C, C++, Lua, Scratch, Shell, PowerShell

Development Tools: Azure, AWS, Docker, Postman, Jira, Agile, Git, GitHub, MongoDB