

Tony Amin

Baldwin Park, CA | M: +1 7027428070 | TonyAmin2520@gmail.com

EDUCATION

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE, CALIFORNIA STATE UNIVERSITY, FULLERTON (CSUF)

Master of Science

Major in Computer Engineering

Cumulative GPA: 3.3/4.0

Relevant Coursework: RTOS, Analysis of Random Signals, Hardware Security, FPGA Design and VHDL, Verilog, CMOS

Fullerton, CA

May 2025

HOWARD R. HUGHES COLLEGE OF ENGINEERING, UNIVERSITY OF NEVADA, LAS VEGAS (UNLV)

Bachelor of Science

Major in Computer Science; Minor in Mathematics

Cumulative GPA: 3.25/4.0; Dean's List 2019-2021

Relevant Coursework: Data Analysis, Software Engineering; Operating Systems; Algorithms; Physics, Discrete Math

Las Vegas, NV

May 2021

EXPERIENCE

CSUF - COLLEGE OF ELECTRICAL AND COMPUTER ENGINEERING

Instructional Student Assistant

Fullerton, CA

Jun 2024– Aug 2024

- Maintained lab equipment and performed troubleshooting to support Electrical and Computer Engineering courses
- Repaired and calibrated lab devices, ensuring optimal functionality for student projects
- Installed servers and configured IT equipment to enhance lab operations

CSUF - PROJET RAISE

Student Research Mentor

Fullerton, CA

Jun 2024– Oct 2024

- Guided community college students in developing research topics and experiment design for lab projects
- Providing resources and support to help students initiate and advance their research work
- Held regular progress check meetings to offer feedback and ensure milestones were met
- Assisted students in formatting results and presenting their research findings effectively

ATHENA GTX (20+ small-scale / startup - Biomed Technology; device manufacturing)

Software Engineer 1&2

Johnston, IA

Jun 2021– Oct 2022

- Redesigned Athena Device Management Suite (ADMS), for mobile and desktop to include functionality with new devices
- Enhanced IoT device interoperability and real-time data communication for wearable physiological monitoring devices
- Reduced latency and improved device compatibility with platforms like Android, iOS, and Windows
- Validating and troubleshooting wearable devices, improving system reliability and reducing errors overall

UNIVERSITY PROJECTS

CSUF - F.I.R.E. CENTRAL NODE DESIGN

- Designing a custom PCB for a new central node, integrating wind speed and direction sensors for real-time monitoring
- Optimized power management by incorporating new solar panels and battery systems
- Integrating and testing RS485 communication protocols for reliable data transmission
- Improved system scalability and modularity by designing the PCB to accommodate additional sensors and future hardware

TITAN ROVER - CONTROLS MOBILITY LEAD

- Spearheading development of robotic drivetrain and robotic arm, implementing CAN protocol
- Managing cross-functional teams, and coordinating project timelines and deliverables.
- Communicating technical concepts effectively

IOT SMART-SLEEVE

- Designed and built a prototype for a vital sensing arm sleeve that would be marketed towards fitness and healthy changes.
- Demonstrated IoT applications for multiple vital sensing systems

QUORUM iOS TRANSPILATION (SENIOR DESIGN PROJECT)

- Re-integrating RoboVM/MobiVM compilers into the Quorum Programming Language toolchain
- Focusing on text-to-speech functionality, and porting iOS text-to-speech library/UIKIT, into Java
- Simulated final product of application to read text aloud, and other functionality with team members

ASME - OFFENSIVE/DEFENSIVE ROBOTIC CONTROLS

- Implemented holonomic drive using omnidirectional wheels for offensive robots
- Achieved 1st place; National Student Design Competition, 2nd place; International Student Design Competition (2017)

TECHNICAL SKILLS

Hardware Tools: Oscilloscope, Multimeter, Solder, Spectrum Analyzer

Design and Simulation: KiCAD, Altium, FreeCAD, MODELSIM

Languages: C/C++, Java, Python, Verilog, Assembly (ARM, MIPS)

Frameworks: ROS, RTOS, .NET

Developer Tools: Git, SourceTree, Linux, PuTTY, VS Code, Linux, iOS, Android Studio,

Other Technologies: I2C, UART, Arduino, ESP32, STM32, RS-485

Leadership: Project Management, Adaptability, Delegating Tasks,

ACTIVITIES & SOCIETIES

SIGMA ALPHA EPSILON FRATERNITY (ΣAE)

Scholarship Chair

Fullerton, CA
Nov 2023 - Present

- Managed and tracked fraternity-wide academic performance
- Collaborated with University to provide members with access to all available academic resources
- Fostered academic success and assistance between members; aligning with fraternity values and university expectations

NATIONAL SOCIETY OF BLACK ENGINEERS (NSBE)

Vice President

Las Vegas, NV
Aug 2020 – May 2021

- 2nd in command, supporting president in planning and executing chapter initiatives
- Organized and advertised enrichment events: Python coding tutorials, Resume building, Guest Panels
- Oversee fundraising, general body meetings, etc

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

Secretary

Las Vegas, NV
Aug 2017 – May 2019