HADI ASEMI

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» Education

BS + MS in Computer Science California Polytechnic State University | September 2019- Current
Bachelor + Master Computer Science 2023
• CPE 202(Data Structures) CPE 203(Object-Oriented Programming and Design) CSC 348(Discrete Structures) CSC 480(Artificial Intelligence)
• CPE133(Digital Design) CPE233 (FPGA and Assembly) CPE 315(Computer Architecture)
• Member of AI Club, White Hat Security Club, and Color-Coded Club.
• Calpoly Scholars award winner

AA in Mathematics and Physics College of San Mateo | 2015-2019
Associate Mathematic and Physics 2019
• Circuits 1,2 Physics 1-3 Calculus Differential Equations Linear Algebra

» Skills

CODING: Python, Java, C, Matlab, Bash Scripting, SQL, MongoDB, Docker, Git, Go
DOCUMENTING: Markdown, Latex, Pandoc, Sphinx

» Employment

WhiteFox Defense Technologies, Inc. | Software Engineer(Intern) | June 2021 - March 2022
Software Engineer
• Work with Esri API
• Automate internal reporting system
• Present data on the map
• Create documentation system with Sphinx
• Create testing system which generate CSV file for testing the UI
• Automate shape file conversion from Census data to CSV files to keep our databases up to date

Undergraduate Research Assistant | UC Merced ASPIRES Internship | Summer 2019
• As a member of Dr. YangQuang Chen's MESALab, I researched human-automation system principles and developed a novel design on motorized inverted pendulum controllers.
• The results of our research project were reviewed and accepted for presentation at the Annual University of California, Merced Symposium.
• Built an Android application and PID filter in Simulink to drive microcontroller and pendulum components.
• **Research Presentation:** https://youtu.be/zCgQEuleZ-s

STEM Pathways Research Internship | January 2019
• Led team in STEM Pathways Research Group, a two-week internship program focused on research, presentations skills, and project building.
• Built a security box with an ultrasonic sensor, and Arduino microcontroller for smart home applications. Presented the results and data collected by our research group.

Teacher's Assistant & Tutor | College of San Mateo | 2017-2019
• Teacher's assistant for advanced physics (PHYSICS250)
• Provided tutoring for mathematics, helping students succeed
• Designed a program to help students improve public speaking skills
• Set up laboratory and computer equipment for professors

» Projects

Predicting Pre-Diabetic Using Machine Learning in Farm Workers(Python) | September 2020 - October 2020
• Accurately predicted the likelihood of diabetes based on data provided by Dr. Angelos Sikalidis.
• Built an AI system for dietary recommendations based on the measurement of patients' vitamin levels
• **Project code:** https://github.com/Hadiasemi/Diabetics-AI.git

MIPS Assembler(Java, MIPS) | September 2020 - October 2020
• Developed Java program to automatically convert MIPS assembly instructions into binary
• Executed machine-level instructions through register and memory simulation
• Improved execution speed of existing hardware through algorithm analysis and code restructuring

Virtual World Game(Java) | June 2020 - August 2020
• Refactored existing code base to follow object-oriented principles through elimination of procedural programming and creation of abstract classes
• Produced complete UML diagrams displaying class inheritance and method implementation
• Created methods improving entity movement accuracy and object collision detection