MICHAEL GRANBERRY
COMPUTER ENGINEER

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EDUCATION

California State University, Northridge - GPA: 3.85
Major: Computer Engineering; Minor: Computer Science

Expected Graduation: Fall 2023
Northridge, CA

Santa Monica College - GPA: 3.22
Associate of Arts: General Science

Fall 2016 – Spring 2020
Santa Monica, CA

Relevant Classes

Microprocessor Systems, Design of Digital Computers, Theory of Digital Systems, CMOS Digital Electronics, Semiconductor Electronics, VHDL, Linear Systems and Signals, Software Engineering, Data Structures with C++ / Java, MATLAB Numerical Analysis

RELEVANT WORK EXPERIENCE

ECE Instructional Student Assistant - Theory of Digital Systems, Lab
California State University, Northridge ECE Department

February 2022 – Present
Northridge, CA

- Designed and built various combinational and sequential digital circuits that met specific design requirements with students.
- Performed schematic design and simulations in PSPICE for circuit verification with students.
- Assisted students in debugging their digital logic circuits.
- Developed lab experiments for the professor and prepared lab equipment for upcoming experiment.

ECE Instructional Student Assistant - Semiconductor Electronics 1, Lab
California State University, Northridge ECE Department

February 2022 – Present
Northridge, CA

- Designed and built circuits using diodes, BJTs, and MOSFETs that met specific design requirements with students.
- Performed schematic design and simulations in PSPICE for circuit verification with students.
- Held weekly office hours and tutorial sessions on designing the fundamental BJT and MOSFET amplifiers.
- Assisted students in debugging their analog circuits.
- Prepared lab equipment for upcoming lab experiments by calculating required circuit component values.

PROJECTS & LEADERSHIP

Co-Lead on Drone Modular Smart Pallet Project
NASA JPL – California State University, Northridge Autonomy Research Center

June 2021 – Present
Northridge, CA

- Developed software in python to acquire range data from an ultrasonic sensor that utilized the I2C bus on a Raspberry Pi.
- Integrated an ultrasonic sensor with ROS (Robot Operating System) by developing publisher and subscriber nodes, and launch files.
- Managed a sub-team of 4 members whose responsibilities consisted of sonar, radar, GPS, and IMU ROS integration.
- Created presentations to share and discuss progress, issues, and goals with team.

Co-Lead Software Engineer
PR3 Hotel Management System – California State University, Northridge CS Department

August 2022 – December 2022
Northridge, CA

- Developed a hotel management system using C#, WinForms, and Google Firebase Realtime Database.
- Managed a team of 3 members by delegating tasks, reviewing their code, and offering feedback.
- Created UML class diagrams, CRC cards, and a system use case diagram to plan software development.
- Used Agile software engineering methodologies, Jira project management system, GIT, and GitHub to develop software.

Systems Engineer
CSUN Defense – California State University, Northridge ECE Department

June 2022 – July 2022
Northridge, CA

- Developed object detection software with Open CV and python to detect faces in an image.

HONORS & AWARDS

California State University, Northridge Deans List

Fall 2020, Fall 2021, Spring 2022

Associated Students General Scholarship (CSUN)

Fall 2021 – Spring 2022

Honors at Santa Monica College

Fall 2016 – Spring 2020

SKILLS

Hardware

Breadboard, Oscilloscope, Function Generator, DMM, Circuit Components Familiarity, Arduino, Raspberry Pi

Software

ROS, OrCAD Capture PSPICE, MATLAB, Linux, LaTeX, GIT/GitHub, OOP (Python, Swift, Java, C++, C#), C, ARMv7