**MICHAEL GRANBERRY**

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**EDUCATION**

**California State University, Northridge – GPA: 3.85** *Expected Graduation: Fall 2023*

Major: Computer Engineering; Minor: Computer Science *Northridge, CA*

**Santa Monica College – GPA: 3.22** *Fall 2016 – Spring 2020*

Associate of Arts: General Science *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** *February 2022 – Present*

*California State University, Northridge ECE Department Northridge, CA*

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

**ECE Instructional Student Assistant – Semiconductor Electronics 1, Lab** *February 2022 – Present*

*California State University, Northridge ECE Department Northridge, CA*

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

**PROJECTS & LEADERSHIP**

**Co-Lead on Drone Modular Smart Pallet Project** *June 2021 – Present*

*NASA JPL – California State University, Northridge Autonomy Research Center Northridge, CA*

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

**Co-Lead Software Engineer** *August 2022 – December 2022*

*PR3 Hotel Management System – California State University, Northridge CS Department Northridge, CA*

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

**Systems Engineer** *June 2022 – July 2022*

*CSUN Defense – California State University, Northridge ECE Department Northridge, CA*

1. 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