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*
- 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 *February 2022 – Present*
California State University, Northridge ECE Department *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 *June 2021 – Present*
NASA JPL – California State University, Northridge Autonomy Research Center *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 *August 2022 – December 2022*
PR3 Hotel Management System – California State University, Northridge CS Department *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 *June 2022 – July 2022*
CSUN Defense – California State University, Northridge ECE Department *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