Majok Francis Ring

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EDUCATION

University of California, Merced   **May 2018**
B.S Computer Science and Engineering   GPA: 3.2
Relevant Courses: *Data Structures – Computer Algorithms – Database Systems – Object Oriented Programming – Discrete Math – Computer Networks – Network Security*

TECHNICAL SKILLS

- Programming Languages– **Java**, **C++**, **C**, **Python**, **HTML**, **CSS**, **SQL**, **OpenGL**, **Android Development**
- Other skills – Git, Android Studio, Photoshop, Illustrator, After Effects

INTERNSHIPS/VOLUNTEERING

Software Engineer, HackMerced – (*ReactJS, ArangoDB, HTML, CSS*)   **June 2017 – Present**
- Worked with senior developers to maintain and optimize webpages for login, registration, sponsorship, and contact pages.

LEADERSHIP/SOCIETIES

Secretary, Quantitative Project @ UC Merced   **September 2014 – Present**
- The Q Project's mission is to foster investigative research with a focus on big data analytics
- Worked with graduate students to help undergraduate students become more engaged in research/engineering projects to strengthen their skills and become competitive
- Projects: Tech Equation, Merced Rover, RoboHackathon, Public 2020+STEM Outreach

COMPUTER SCIENCE RELATED PROJECTS

PG&E Engineering Service Learning, UC Merced   **January 2015 – December 2015**
UAV Team – (Java, OpenCV, Batch)
- Worked with interdisciplinary teams to develop a program which utilizes a drone to autonomously fly through a route and take processed images to detect pierce's disease in crops.
- Designed and developed user interface in java and analyzed areas of concern using NDVI and OpenCV
- Constructed scripts to load user images into stitching program, reorder and begin analysis

Parking Analytics Web Application   **September 2016 – December 2016**
Databases Project – (Java, SQLite, JavaScript, HTML, CSS)
- Wrote database schemas to store occupant info (name, age, sex, parking duration) and identify data trends.
- Designed and implemented GUI in Java and built tools for I/O using open source graphing libraries

Recursive Tree Analysis Tool   **June 2017 – Present**
Personal Project – (C++, OpenGL, Visual Studio)
- Engineered a graphical program to simplify the analysis of recursive trees by the recursion tree method.
- Optimized to accept input as a recursive equation and outputs a detailed tree with valuable information such as depth, size of sub-problem, number of nodes, workload per node, and total workload per depth.

Skateboarding Physics Simulator   **January 2017 – May 2017**
Computer Graphics Project – (C++, OpenGL, Visual Studio)
- Designed and developed a program in OpenGL engine to simulate and analyze skateboarding tricks in 3D with simulated gravity and environment interaction.
- Custom classes designed to build and simulate interlocking parts, (board,wheels,bearings)
- Custom class to evaluate and interpolate Bézier curves, Lagrange curves, and B-Splines
- Uses graphed Bézier curves to control vertical position and X, Y,Z axis rotation over a set interval