

# Majok Francis Ring

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## EDUCATION

**University of California, Merced**  
Computer Science and Engineering

**2014 – 2018**  
GPA: 3.2

## RELATED COURSES

- Data Structures
- Intro to Object Oriented Programming
- Computer Organization and Assembly Language
- Computer Architecture
- Computer Algorithms
- Computer Graphics
- Database Systems
- Introduction to Artificial Intelligence
- Discrete Math
- Linear Algebra and Differential Equations
- Vector Calculus

## SKILLS

- Programming Experience – Java, C++, C, Python, HTML, CSS, SQL, OpenGL, MIPS Assembly, Android
- Other development – Git, Agile, Blender 3D Modeling, Photoshop, Illustrator, After Effects

## SCHOOL EXPERIENCE

**PG&E Engineering Service Learning, UC Merced**

**January 2015 – December 2015**

Instructional Labs II

Spring 2015

- Collaborated with the UC Merced Engineering Instructional Labs on the design and construction of a next-generation, high-efficiency solar-collector to be used in multiple engineering-heat-transfer instructional labs as well as in UC Merced research projects.

UAV Team

Fall 2015

- 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.
- Developed user interface in java and analyzed areas of concern using NDVI and OpenCV.

**The Quantitative Project, UC Merced**

**September 2014 – Present**

*RNA Sequencing Analysis Web Pipeline*

*January 2016 – Present*

- Worked on developing a web pipeline for laboratory use at UC Merced.
- This project is still in progress and utilizes PHP, HTML, CSS, Python, and SQL.

**Parking Analytics Web Application**

**September 2016 – December 2016**

*Databases Project – CSE 111*

- Program where users can view a graphical layout of the campus parking lot and use analytics tools to view current occupant info (name, age, sex, parking duration) and identify data trends. Uses Java, JavaScript, HTML/CSS, and SQL.

**Recursive Tree Analysis Tool**

**June 2017 – Present**

*Personal Project*

- A program to simplify the analysis of recursive trees by the recursion tree method. Allows users to input a recursive equation such as  $T(n) = 4T(n/2) + 2n^2$  and view the output as a detailed recursive tree. Able to view information such as depth, size of sub-problem, number of nodes, workload per node, and total workload per depth. Uses OpenGL/C++.