

#### **EDUCATION**

University of California, Riverside

June 2020

B.S., Computer Science

#### Relevant Coursework

Computer Graphics, Embedded Systems, Machine Learning, Data Structures & Algorithms, Database Systems, Operating Systems, Optimization, Numerical Analysis

#### **SKILLS**

#### Software Experience

Parallel Programming
Azure Cloud Computing

React

Git

Java

Linux/Unix

Adobe

#### Programming Languages

C/C++

Python

**MATLAB** 

SQL

CUDA C

JavaScript

HTML

**CSS** 

# POSITIONS &

#### **AWARDS**

UCR Chancellor's Scholarship 2020

CreateSC 2020 UI/UX Designaton Honorable Mention

NASA FIELDS Researcher 2018-2019

CodeConnects Tutor 2018-2019

Webmaster, Undergraduate Research Club 2018-2019

#### **EXPERIENCE**

Caltech IPAC

Pasadena, CA

#### Software Developer Intern

July 2019-Sept2019

- Developed Python software that creates database, queries data and calculates statistical analysis related to galaxy formation
- Calculated and designed visualizations of Gaussian fits, extrapolation, interpolations, and error analysis
- · Accurate models when compared to previous manual search data
- Libraries used: pandas, numpy, astropy, scipy, etc.

#### NASA Jet Propulsion Laboratory

Pasadena, CA

#### Software Optimization Intern

June 2018-July 2019

- Optimized optical toolbox software by 90% for WFIRST Coronagraph Instrument (flagship space observatory)
- Architected the dynamically parallel solution in CUDA C with MATLAB API on General Purpose GPU
- Tested, generalized and documented the code for team's use

## Riverside Lab for Artificial Intelligence Research

Researcher

Jan. 2019-June 2019

- Dockerized, using singularity images, to run Quasar Modeling code on high performance clusters
- Tested, visualized and compared methods to improve Bayesian models
- Attended weekly seminars to discuss novel machine learning/ Al papers

#### **PROJECTS**

#### Nutrition Recommender

Backend Developer

Sept. 2019-Dec. 2019

- Created WebApp to track user's nutrition through user accounts, database of nutrition information, personalized recommendations
- Devised machine learning recommendation system with user history, user goals, and all user data to deliver meal/food recommendations
- Team of 4, AngularJS, Firebase, Microsoft Azure

#### Quick Math

March 2019-Dec 2019

- Coded/wired embedded program in C on ATmega1284 microcontroller
- · Invented game to test users computational speed
- Incorporated LED displays, a joystick, USART, buttons, etc.

### **Graphics Pipeline**

Jan. 2020-April 2020

 Developed 3D rendering pipeline including vertex and fragment shading, rasterization and interpolation, clipping and z-buffering OpenGL (GLSL)