

## Contact

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www.linkedin.com/in/

samanthadmontoya (LinkedIn)

github.com/sa5mmm (Portfolio)

## Top Skills

C++

Python

Java

## Languages

English (Native or Bilingual)

# Samantha M.

Data Scientist

Orange County, California Area

## Summary

Experienced problem solver with a demonstrated history of mentoring computer science topics in the community. Skilled in C++, Java, Python, JavaScript, and Linux. Strong education professional with a Bachelor of Science - BS focused in Computer Science from California State University, Fullerton.

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## Experience

Automobile Club of Southern California

Data Scientist

July 2019 - Present (9 months)

Costa Mesa, CA

Big Data - Underwriting

California State University, Fullerton

10 months

Security Exploration Activities, for Network Security Fundamentals

January 2019 - May 2019 (5 months)

Simulated hijacking of shell by utilizing a C++ buffer overflow flaw in strcpy

Programmed a worm in Python to replicate itself and encrypt files on victim systems

Activities, for Intro to High Performance Programming

January 2019 - May 2019 (5 months)

Practiced parallelization of array operations using OpenMP, message passing to elect a leader in MPI, and running functions on the GPU using CUDA

Clustered data based on k-nearest-neighbors algorithm on a dataset of 6,497 entries with accuracy of 60% using CUDA

Activities in MATLAB, for Mathematical Model Building & Numerical Analysis

August 2018 - December 2018 (5 months)

Extrapolate information in MATLAB, given data of a physical system and interpret the data based on dimensional analysis

Produced tools to find critical points in a function or sequence by interpreting numerical methods, such as the Bisection Method, and implementing into MATLAB

### Cod.Ed Education Corp

Instructor

June 2018 - August 2018 (3 months)

Fullerton, CA

Taught a group of 30 children to program in JavaScript to develop an Amazon Alexa skill from start to finish

### Coding for Treasure

Instructor

October 2017 - August 2018 (11 months)

San Marino, CA

Taught Python and critical thinking to a class of 15 sixth graders using age appropriate problems, solvable by programming

### California State University, Fullerton

Software Development with Open Source Systems, Coursework

January 2018 - May 2018 (5 months)

Explored CentoOS 5.5 operating system and created scripts using AWK, BASH, and PERL to sort data and automate tasks

### University of California, Riverside

Citrus Hack 24 Hour Hackathon

April 2018 - April 2018 (1 month)

Programmed a table-top game as an embedded system with Arduino Uno in C++

Analyzed professional code for proper syntax and logic of auxiliary components for Arduino such as buttons, LEDs, and LCD screen

Collaborated as a team of three to design game attributes and mechanics and assigned roles to construct such attributes

California State Polytechnic University-Pomona  
Machine Learning and Facial Recognition  
June 2017 - August 2017 (3 months)  
Pomona, California

Trained TensorFlow Inception v3 with 4000 pictures using python to classify flowers and analyzed pros and cons to determine feasibility of using deep learning for a security system

Utilized CMake to build OpenCV 3.1.0 and OpenCV Contrib 3.1.0 source in a python wrapper to capture samples, train identity profiles based on samples, and recognize an individual for use in a security system

University of Southern California  
Athena Hacks 24 hour girls only hackathon  
April 2017 - April 2017 (1 month)

Designed a web applet with Node.js and HTML with team of two

Mentored team member with no prior experience in HTML enabling them to design a simple user interface for web applet

Calculated 2D vectors to place on photo of user with calls to Microsoft Cognitive Services API

Caltech  
Hacktech 36 hour hackathon  
March 2017 - March 2017 (1 month)

Researched and utilized Arduino Uno, Wixels, MQ 135, MQ 7, DHT 11, and Wixel Shield to collect atmospheric data in C++

Implemented external libraries of MQ 135, MQ 7, and DHT 11 into one cohesive project

Created a serial com listener in C# to parse and send data to Azure SQL database, established by team member

Claremont Colleges  
5C Hackathon 12 hour hackathon  
November 2016 - November 2016 (1 month)

Consulted with a team of four, C++ functions in Arduino

Researched functions in Unreal Engine to make a 3D game

University of California, Riverside

Citrus Hack 36 hour hackathon

October 2016 - October 2016 (1 month)

Debugged Java code for team of four, in Android Studio for 2D platform game

Designed level for game with pre-made attributes

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## Education

California State University, Fullerton

Bachelor of Science - BS, Computer Science · (2017 - 2019)

Citrus College

Associate of Arts - AA, Behavioral Sciences · (2016 - 2017)