# **AVIK JAIN**

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in avikj

aviki

I am a student developer with experience using algorithms in educational, competitive, and practical environments. I am particularly interested in graph algorithms and their real-world applications. I am currently a Platinum division competitor in the USA Computing Olympiad.

## **Skills**

#### PROGRAMMING LANGUAGES

Java

Python

HTML/CSS

JavaScript

Node.js

MATLAB

#### **TEST SCORES**

AP Computer Science: 5 AP Calculus BC: 5

AP Chemistry: 5 ACT: 36

AMC 10: 126 AMC 12: 115.5

AIME: 7

## **Education**

#### Monta Vista High School

I am a high school junior with an unweighted 4.0 GPA. I have completed math courses beyond the high school curriculum up to Calculus 1D (Multivariable Calculus) at De Anza College, and I am currently enrolled in AP Physics at school among other classes. Previous relevant coursework includes AP Calculus BC, AP Computer Science A, and AP Chemistry.

## **Experience**

#### MV WebDev Club Director of Technology

Monta Vista High School
Ogy August 2015 to Present

Created new member portal with Node.is, created curriculum for, and taught full-stack web development.

MathAndCoding Program Leader Bay Area January 2016 to Present

Led workshops teaching introductory problem solving and programming with Java and Python to over 150 students. Received Gold Presidential Service Award for over 100 hours of service.

#### IncubateX Global Hackathon

Director of Technology

June 2016 to Present

Wrote most of the code for a customizable website template used by hackathons for promotion by over 10 events. Led mobile app development and wrote majority of code for Android app and web server which allows event organizers to deliver location-based push notifications and updates to hackathon participants.

## **Projects**

fbash April 2016 to June 2016

A command-line tool which allows developers to access their command-line remotely through Facebook Messenger and provides additional utilities for collaboration and development. Installed over 3,000 times through NPM.

SwiftAssist February 2016

A cross-platform application which leverages crowd-sourcing for rapid emergency response. I built the Android and Pebble applications.

Flappy Nerd July 2015

A Flappy Bird-based game which takes advantage of its addictive nature to assist the user in studying effectively using data queried from Quizlet. I programmed the game physics and graphics. Built with Quizlet API and Java.

MV JSA Member Portal July 2016 to Present

A member portal and moderated blogging platform for Monta Vista Junior State of America, which allows members to track activities and submit richly-formatted blog posts to officers for review and publication. Built with Node.js and MongoDB.

## **Awards**

SMHacks · 1st Place January 2017

My team submitted DMS, an application which allows users to wager money on todo list items; the money is returned to them upon completion, or donated to a charity upon failure. I built a Redux state machine to manage the web app's frontend state.

#### **USA Computing Olympiad · Platinum Division**

December 2016

I wrote efficient solutions for a series of timed algorithmic programming problems involving graph theory, combinatorics, and dynamic programming to progress to the highest competitive division, and analyzed time complexity in regard to input sizes to determine how successfully algorithms would run given time constraints.

### Los Altos Hacks · Best Use of Microsoft Technologies

February 2016

My team submitted SwiftAssist (see above) and was also an overall finalist.

#### American Invitational Mathematics Exam 3-time Invitee and Competitor

I was invited to participate in the competition 3 times, based on my performance on the AMC 10 twice and on the AMC 12 once.

CU Hacks · 2nd Place July 2015

My team submitted Flappy Nerd (see above) in the Education category.

#### California DECA Career Development Conference 2nd Place

2015

I competed in the ENPI Individual Entrepreneurship event in my freshman year, one of the most competitive events at the time, and qualified for the international competition in Orlando.