# Stephen Huan

## Resumé

\$\psi +1 (785) 218 8769 ⋈ stephen03.huan@gmail.com stephen-huan.github.io stephen-huan PGP key: A99DD60E

## Education

2017-Present

High School, Thomas Jefferson High School for Science and Technology, Alexandria, weighted GPA 4.54/4.0, currently a high school senior.

Courses taken

o AP Computer Science A, Artificial Intelligence, Parallel Computing, Computer Vision, AP Calculus BC, Multivariable Calculus, Matrix Algebra

o Machine Learning, Differential Equations, Probability Theory

2020-2020

Summer, University of California, Berkeley, Berkeley, 4.0/4.0.

Took COMPSCI 61A, "The Structure and Interpretation of Computer Programs", and MATH N55, "Discrete Mathematics", as part of the pre-college scholars program, A+ in both.

#### Programming Experience

Languages

Python, LATEX Java, C, C++

High 5+ years of Python scripting and  $PAT_{FX}$  for this document

Java used in AP Computer Science, C/C++ used in some of my classes

Medium

Projects

Studied improvements to word embeddings during George Mason University's Aspiring Scientists Summer Internship Program (ASSIP).

Algorithms

Implementations of the simplex algorithm, number theoretic transform, suffix trees, Aho-Corasick automaton, and Fischer-Heun structure to name a few.

TJ Cubing Website

Created the website TJ Cubing to automate finding Rubik's cube competitions, maintaing school records, organizing lectures, and other tasks.

**GPG-Messenger** 

Pidgin-style Python app that uses the PGP protocol to encrypt messages.

School Research

Model selection to predict the number of salamander eggs in pools (SVMs won).

Tutoring

Was a paid tutor in computer science as well as a volunteer tutor for peers, volunteered to teach Rubik's cubing at Hope Chinese School.

Volunteering

Volunteered at Techstravaganza, an outreach event for children, and wrote problems for TJ IOI, a high school programming contest.

#### Hobbies and Interests

Senior Computer Team co-captain Wrote and presented lectures, and participated in a variety of programming competitions (USACO (gold), VTech (5th), PClassic, MBIT (3rd, team), and UMD (2nd, team)).

Vision & Graphics

Act as a teaching coordinator, write lectures on topics like convolutions, neural networks, linear algebra, and raytracing.

Rubik's Cube Club co-captain and webmaster

Run the club as well as maintain the website, write lectures, and also encourage participation in World Cubing Association (WCA) competitions. I average ~10 seconds on the 3x3 Rubik's cube and 13 seconds one-handed (currently top 100 in the US).

Year long junior varsity runner on the school's cross country and track teams. Running