## **DAVID ZHAO**

dz6hu@virginia.edu

Using machine learning to make all our lives more productive and meaningful

EDUCATION University of Virginia, Charlottesville, VA

Aug 2016 - May 2020

B.S. Computer Science with second in Statistics, Overall GPA - 3.90, Major GPA - 4.00

Fall '17: Machine Learning, Computer Architecture, Theory of Computation, Regression Analysis, Math Statistics

Spring '17: Program & Data Rep., Linear Algebra, Probability, Discrete Math

Thomas Jefferson HSST, Alexandria, VA - Web/Mobile App Development Senior Lab

Sep 2012 - Jun 2016

WORK Innovative Defense Technologies, Arlington, VA - Software Engineer Intern

May 2017 - Present

Developed a socket-based chat plugin from scratch as internal & maintainable alternative Typescript, JS, Java, Postgres Learned BackboneJS & UnderscoreJS, coded REST backends, wrote make/build scripts Typescript, JS, Java, Bash

US Army Corps of Engineers, Alexandria, VA - Research Scientist Intern

Jun 2015 - Aug 2015

Developed algorithms to reduce setup and querying computations of a K-nearest neighbors on a spatial index Python

TJ Middle School Tech Institute, Fairfax, VA - Teaching Assistant

Sep 2014 - Jun 2014

Taught 120 middle school students basic app development in workshop and one-on-one settings

App Inventor

Math Tutor, Alexandria, VA - Volunteer/Tutor

Feb 2013 - Jun 2016

Tutored dozens of at-risk middle school students and two high school students on math topics

ACTIVITIES Natural Language Processing Research Group

February 2017 - Present

Exploring NLP and deep learning which entailed weekly meetings discussing current research

Taking online courses in Machine Learning and trying different python libraries

Nu

NumPy, Theano, Tensorflow

HackUVA, Treasurer, Organizer, Mentor, Participant

Mar 2014 - Present

Organized HackUVA '17, treasurer for HackUVA '18, personally contacted 65+ sponsors and organized all caterers

As well, participated in 8 hackathons with more to come, mentored 2 middle school hackathons

Java, JS, Node, PHP

Cavalier Symphony Orchestra, Chief Technology Officer, Principal Trumpet

Sep 2016 - Present

Developing website and streamlining technology and communication within the club

JS

PROJECTS Basic Recurrent Neural Network

**Personal Web Page** 

Jul 2017

Python

Created a recurrent neural network that generates text in the prose of the training text

Python

.IS

Created an aesthetic resume and daily programming journal website, link at bottom

Jan 2016 - Present

oreated an destriction resume and daily programming journal website, link at bottom

. . . . . . . . .

**Neural Network in Google Sheets** 

Jul 2017

Implemented and trained a neural network with programmable hyperparameters in Google Sheets

**Anacostia National Park App** 

Jul 2015 - Jul 2016

Created a geo-narrative audio tour guide app in coordination with an Anacostia National Park representative

Java

Rubik's Cube Club, Developer/Co-President

Nov 2015 - Jun 2016

Elected co-president to develop high school's Rubik's Cube club website and manage communications

JS, PHP

SKILLS Programming Languages

Python - Javascript - C++ - Java - Typescript - Bash - PHP - C# - HTML - CSS

Software and Tools

Git Bash - Linux - Selenium - VS Code - Powershell - Android Studio - GIMP - Blender - Unity 3D

GITHUB www.github.com/davidbzhao LINKEDIN

WEBSITE

www.linkedin.com/in/davidbzhao

davidzhao.me