Alan Zheng

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SUMMARY

Undergraduate student at the University of Virginia with extensive experience in machine learning. Has a passion for algorithms and AI.

EDUCATION

UNIVERSITY OF VIRGINIA
Charlottesville, VA
BS in Computer Science
Expected May 2022
Cum. GPA: 3.966

THOMAS JEFFERSON HSST
Alexandria, VA
Advanced Studies Diploma
Grad. Jun 2019
Cum. GPA: 4.5
SAT: 1600

COURSEWORK

Data Structures
Discrete Mathematics
Theory of Computation
AI and Machine Learning
Multivariable Calculus
Linear Algebra

SKILLS

PROGRAMMING
Over 5000 lines:
Java • JavaScript • Python • LaTeX • C++
Over 1000 lines:
Obj-C • HTML+CSS • MATLAB • Git/Bash • Swift • x86 Assembly
Familiar:
NodeJS • C# • SQL

TOOLS
TensorFlow • Keras • OpenCV • ROS • PyTorch • spaCy • NLTK • scikit-learn • transformers • Pandas • and more ...

LINKS

Github:// **arxk9**
LinkedIn:// **arxk9**
Research:// **swarm.sites.tjhsst.edu**

INTERESTS

Alpine Skiing, Dance,
Piano/Guitar/Cello,
Texas Hold'em Poker

WORK AND LEADERSHIP EXPERIENCE

NOBLIS | Data Science Intern
Jun 2020 - Aug 2020 | Reston, VA

- Worked on the **VÖR** project to implement context-based tagging and Word Sense Disambiguation with negligible impact on speed.
- Worked on a capstone project evaluating stay-at-home order effectiveness during the COVID-19 crisis through traffic data analysis.

TJHSST MACHINE LEARNING | Captain
Sep 2016 – Jun 2019 | Alexandria, VA

- Wrote and taught lectures to 60+ members.
- Maintained club website through Github repository.
- Coordinated with partners like Intel Nervana AI Academy, Yext, and the John Hopkins Radiology AI Lab for funding and internship opportunities.

GMU LEARNING AGENTS CENTER | Research Assistant
Jun 2018 – Aug 2018 | Fairfax, VA

- Worked on an artificial intelligence system for evidence-based detection of Advanced Persistent Threats.

PROJECTS

DRONE SWARM RESEARCH | Partnered Research

- Year long research project developing **reinforcement learning** model to control a swarm of rescue drones to navigate buildings in real time.
- Project ended with **research paper and live demonstration** of 10 drones swarming around obstacles in lab environment (both available on the Research:// website).
- Vicon, who loaned us equipment, wrote a blog on our research

SHOP WITH SPACE | HooHacks 2020

- **Web application** that helps promote good social distancing by informing people about the business of nearby grocery and retail stores.
- **Analyzes the traffic data** and popularity times near that particular store.
- Built with Flask, Google APIs, Python, HTML+CSS, React, and several other libraries
- Won Best Health Hack

MIT BATTLECODE 2019 | Group Programming Competition

- Created a **game agent** in JavaScript to play a real-time strategy game against other agents created by other competitors.
- Competing in a high school group of 3, our team (plzgoeasy) fought to the top 7 out of 600+ college and high school teams in the Sprint Tournament and top 25 in the Qualifying Tournament.

MOOLAH | Hackathon Project

- A smart messenger chatbot built with Python, Flask, HTML, and several other tools to help users manage budgets through more approachable and less rigid texting interactions through **natural language processing** .