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: Computer Science
Minor: Applied Mathematics
Expected May 2022
Cum. GPA: 3.966

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

COURSEWORK

Data Structures • Discrete Mathematics
Theory of Computation • Algorithms
AI • Machine Learning
Vision and Language
Multivariable Calculus • Linear Algebra
Probability • Differential Equations

Coursera Stanford ML Certificate

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 ...

INTERESTS

Alpine Skiing, Dance,
Piano/Guitar/Cello,
Poker

WORK AND LEADERSHIP EXPERIENCE

NOBLIS | Data Science Intern
Jun 2020 - Present | Reston, VA
- Worked on the VÖR project to implement context-based tagging and Word Sense Disambiguation using lightweight NLP techniques.
- 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 while maintaining the club website.
- Coordinated with sponsors 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

CURRENT: GOGH GET PAPER | Personal Project
- **Web application** that generates wallpapers and landscapes based on user preference of artistic style and genre.
- Currently working on the backend, i.e. processing images, training the **generative models** .

SHOP WITH SPACE | HooHacks 2020, Best Health Hack
- **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 a particular store.
- Built with Flask, Google APIs, Python, HTML+CSS, React, among others.

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.
- Ended with a **research paper and live demonstration** of drones swarming in a lab environment (both available on the link).

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.
- Our high school team (plzgoeasy) was top 7 out of 600+ college teams in the Sprint Round and top 25 in the Qualifying Round.

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** .