Avi Arora

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EDUCATION

Georgia Institute of Technology   **Atlanta, GA**
Masters of Science, Machine Learning, Computer Science   Expected **May 2023**
Bachelor of Science, Computer Science   GPA: 3.69 / 4.00   **May 2022**

Related coursework: Object Oriented Programming; Algorithms and Data Structures; Computer Organization and Programming; Artificial Intelligence; Objects and Design; Computer Vision;User Interface Software; Machine Learning

EXPERIENCE

Microsoft, Seattle, WA, *Machine Learning Intern*   Jun 2022 - Aug 2022
- Created multilabel content moderation dataset with over 500,000 samples.
- Applied state-of-the-art machine learning techniques, conducting highly scalable & distributed experiments to generate pseudo labels and denoise labels (confidence learning, pytorch, distributed cloud computing)
- Developed multilabel content moderation model achieving equivalent accuracy and 4x faster E2E latency, saving $2,000,000 / year (DeBERTa V3, Azure ML)
- Model deployed to Azure OpenAI, preventing intentional misuse and unintended harms for GPT-3 as a service.

Perforce Software, Boston, MA, *Machine Learning Intern*   Mar 2021 - Oct 2021
- Evaluated the potential of unsupervised and supervised learning to reduce false positives in an enterprise static code analysis tool, Klocwork (Python, Keras, scikit-learn, numpy, pandas)
- Performed data collection, data preprocessing, model development, and model evaluation in Keras
- Utilized Shapley values to visualize feature importance and understanding model criterion in blackbox algorithms

Capital One, Richmond, VA, *Software Engineering Intern*   Jun 2021 - Aug 2021
- Deployed enterprise grade, non-cloud native DAST scanner to AWS EC2 within Capital One VPC for scheduled application scanning, enabling 2x frequency of scans (Terraform, Docker, AWS ELB, AWS RT53)
- Built web app for employees to schedule DAST scans and view and filter results of scans (Angular.js, S3)

Octtone, Boston, MA, *Founder*, http://octtone.com/#DemoAudio   Dec 2018 - Jun 2021
- Software company focused on mindfulness and improving mental health through digital apps and services, garnered over 200,000 installations generating over $85,000 in revenue.
- Conducted creative design, user experience design, and full stack development of complete meditation application, Bluezen. Produced custom guided meditations and marketing materials with Adobe suite.
- Designed and developed web application for meditation app using React.js, Flask, and Braintree SDK
- Developed algorithm to convert mono channel audio to spatial audio in real time using Swift
- Created full music streaming app in Swift utilizing above algorithm in conjunction with Flask
- Served audio and visual files RESTful using Amazon Web Services, SQL, and Python

Capital One, Richmond, VA, *Software Engineering Intern*   Jun 2020 - Aug 2020
- Designed, created, and launched a new Turing REST API for secure real-time consumer (NPI/PCI) data tokenization currently supporting peak 2.5M TPS w/ 10B operations/day. (AWS S3/EMR, Docker, Lua, SQL)
- Trained and deployed scalable, multi-layer anomaly detection neural networks, increasing accuracy of error reporting for token-based development incidents by 2.1x. (Python, SageMaker)

Rocket Software, Waltham, MA, *Software Engineering Intern*   Jun 2019 - Aug 2019
- Developed foundational apps and features for Zowe, Open Mainframe Project, using Angular and React
- Created communications protocol between external applications and mainframe virtual desktop, increasing options for between-windows communication for virtual desktop app developers

SKILLS

Programming: Python, Swift, Java, Typescript, Javascript, Golang, Lua, C, HTML, Bootstrap, CSS, Assembly
Technology/Operating Systems: Terraform**,** Docker**,** AWS: EC2, ELB, RT52, MacOS, Linux, Terminal
Software/Tools: Git, XCode, Vim, Eclipse, Adobe Photoshop, Adobe After Effects, Adobe Illustrator
Frameworks/Packages: Pytorch, keras, scikit-learn, Angular, React, numpy, pandas, matplotlib, Selenium, scipy