Avi Arora

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EDUCATION

Georgia Institute of Technology   **Atlanta, GA**
Masters of Science, Machine Learning, Computer Science GPA: 3.61 / 4.00   **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 Engineer II*   Nov 2024 - Present
- Built and scaled a company-wide platform for benchmarking software engineering agents, now powering 1M+ evaluations/year.
- Adopted as the primary evaluation system by teams across GitHub Copilot, VSCode, and Azure DevOps to measure agent progress and drive performance improvements.
- Onboarded 8 public benchmarks onto the platform, including Multi-SWE-Bench, Aider, and SWE-Lancer
- Designed 3 internal benchmarks focused on environment setup, feature implementation, and change reversion; now used by GitHub Copilot and GitHub Coding Agent teams to evaluate and improve agent performance.

Text2Infographic, Seattle, WA, *Founder*   May 2024 - Present
- Bootstrapped Text2Infographic from idea to 55,000+ users and 5-figure revenue without marketing spend, driving all growth through SEO and organic product-led acquisition.
- Performed end-to-end ML development to generate infographics from unstructured text using LLMs

Microsoft, Seattle, WA, *Machine Learning Engineer I*   Jul 2023 - Nov 2024
- Conceived, built, and deployed Microsoft Prompt Shields, the first commercial prompt injection detection model, as sole model developer, scaling to 20B classifications within a year.
- Created scalable pipelines for synthetic data generation and scraping real world attacks from social media.
- Developed internal benchmarks to quantify model performance on prompt injection detection in 8 languages
- Implemented distributed training and evaluation pipelines; ran hundreds of experiments and shipped 17 model iterations, achieving +30 point F1 gain and resolving 1,000s of DSATs.
- Merged classifiers into a unified model with +7 point F1 gain and 50% fewer parameters, reducing serving costs by $6,000,000 / year.

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)

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 in blackbox classifiers

Octtone, Boston, MA, *Founder*, http://octtone.com/#DemoAudio   Dec 2018 - Jun 2021
- Launched Octtone, a mindfulness-focused software company with 200K+ installs and $85K+ in revenue.
- Built and shipped full-stack meditation and audio apps using React, Flask, Swift, and AWS, including Bluezen, O My Soul mobile + web, and a custom spatial audio streaming tool.
- Developed algorithm to convert mono audio to real-time spatial audio on-device.

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