Faraaz Ahmed

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EDUCATION

University of Toronto

Toronto, ON

Honours Bachelor of Science (HBSc), Double Major in Computer Science & Statistics

Sep 2022 - Present

- Expected Graduation: December 2025
- Awards: International Scholar Award (\$100,000)
- Relevant Coursework: Algorithms & Data Structures, Statistical & Data Analysis, Databases, Web Programming

EXPERIENCE

Cohere Toronto, ON

Senior AI Data Trainer

 $Dec\ 2023-Present$

AI Data Trainer

Sep 2023 – Dec 2023

- Audited and ranked machine learning datasets by debugging, generating, and quality assurance testing against multiple programming languages (Python, Java, HTML/CSS, JavaScript, C, C++, SQL, TypeScript).
- Fine-tuned Cohere models via prompt engineering, RLHF tasks and data analysis sprints achieving 13.5% performance improvement over leading competitors while reducing operational costs by 50%.
- Produced & annotated high-quality data for training Cohere's Command R & R+ (104 billion parameter) models.
- Reviewed and audited tasks from team members, delivering feedback to maintain data accuracy and consistency.

Projects

Scriptorium: Full-Stack Online Code Execution Platform | TypeScript, React.js, Next.js, SQLite, Docker

- Developed a code editor using Next.js, Prisma, TypeScript and SQLite for collaborative code sharing with syntax highlighting, blog post sharing and code template forking.
- Built a responsive frontend with React, and TailwindCSS, incorporating authentication via JWT, role-based access control, code template filtering, and blog post management.
- Containerized application using Docker to ensure secure, isolated deployments.

Full-Stack Digital Accessibility Web Application | JavaScript, Node.js, React.js, REST APIs, MongoDB

- Developed a digital accessibility platform to evaluate web and PDF content compliance with accessibility guidelines like WCAG and PDF/UA for 0 barriers foundation (non-profit).
- Integrated APIs (Puppeteer, AXE, Cheerio, Adobe PDF Accessibility) for web scraping and automated accessibility validation, reducing testing time by 25%.
- Utilized Node.js, Express, MongoDB, and AWS for backend infrastructure, with real-time feedback and batch testing features, improving user efficiency and accuracy.

University of Toronto ASA DataFest 2024 | 3rd place Winner & Best Presentation

- Utilized statistical methods and tools including Python (pandas, matplotlib) and R to deliver a comprehensive report on student engagement in collaboration with CourseKata.
- Managed a team of four to deliver actionable insights through advanced data analysis and modeling, ensuring an effective presentation to business executives and stakeholders.

RESEARCH

AI Agents for Fine-tuning | Machine Learning, PyTorch, Azure ML, DPO, MLOps

Jan 2025 – Present

- Conducting research on LLM agents under the mentorship of Riashat Islam (Microsoft), utilizing frameworks like Sibyl, Dynasaur, and Autogen to fine-tune pre-trained models with Direct Preference Optimization (DPO) and evaluate them against benchmarks.
- Developed expertise in model validation, DPO-based fine-tuning, and performance evaluation of models.
- Hands-on experience with Azure ML for job orchestration and compute management, writing YAML and shell scripts to manage jobs on A100 and H100 clusters.

SKILLS & INTERESTS

Languages: Python, Java, JavaScript/TypeScript, Bash/Shell, C, C++, C#, R, SQL, Swift Frameworks/Libraries: React, Node.js, Next.js, Express.js, Tailwind CSS, Pandas, PyTorch, Unity, LangGraph Tools & Databases: Git, Docker, PostgreSQL, MySQL, SQLite, MongoDB, Postman, AWS, Jira, Azure ML Interests: Weightlifting, Elden Ring, Pop Culture (Coldplay, Suits), Ramen hunting