ALEXANDER FAROUZ

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Education

Georgia Institute of Technology, M.S. in Computer Science**, GPA: 4.00/4.00**   **Expected Graduation: May 2027**
George Mason University – Honors College, B.S. in Computer Science , **GPA: 3.95/4.00**   **Graduation: May 2025**
Relevant Coursework: Knowledge-Based AI, ML for Trading, Network Science, Analysis of Algorithms, Quantum Algorithms

Skills

Languages: Proficient: Java (6 yrs), Python, JavaScript, C/C++ (5 yrs); Intermediate: TypeScript (3 yr); Beginner: Go, Swift (>1yr)
Technologies: AWS, Azure, Langchain, Kubernetes Pinecone, React, Next.js, FastAPI, Django, SQL, MongoDB, Postgres, OpenAI

Experience

Software Engineer, TS/SCI w/ CI Poly   **Herndon, VA**
Peraton   **June 2025 – Present**
- Engineered secure Django backend services on Oracle Linux, implementing RESTful APIs & configuring Nginx & Gunicorn
- Automated multi-VM deployments using Bash, Docker, and systemd, improving infrastructure consistency and reliability
- Resolved production networking, TLS, and authentication issues to maintain high availability and secure system operations
- Implemented structured logging and validation to enforce data integrity and traceability in secure production environments

Software Engineering Intern   **Remote**
Horizon Labs   **August 2024 – January 2025**
- Designed & implemented 10+ REST APIs & full-stack dashboard features, contributing to a 100% increase in platform users
- Implemented backend API integrations using FastAPI, streamlining communication between frontend and Azure services
- Developed server-side logic and database management with Azure SQL and Blob Storage, optimizing storage and retrieval
- Collaborated with cross-functional Scrum teams to integrate LLM processing using Langchain, leveraging FastAPI libraries

Software Engineering Fellow   **Remote**
Headstarter AI   **July 2024 – September 2024**
- Built 5+ AI apps and API's using NextJS, OpenAI, Pinecone, StripeAPI with 98% accuracy as seen by 1000 users
- Developed projects from design to deployment leading SCRUM team of 3 engineering fellows using MVC design pattern
- Coached by Amazon, Bloomberg and Capital One engineers on Agile, CI/CD, Git and microservice patterns

Computer Science Teaching Assistant   **Fairfax, VA**
George Mason University   **January 2023 – Active**
- Worked/working as teaching assistant for Analysis of Algorithms, Data Structures and Algorithms, Object-Oriented Programming and Introduction to Computer Programming holding office hours answering 100+ questions for all courses
- Created homework solutions, assisted students with lab assignments during lab periods, proctored tests for all courses
- Answered student questions on projects on online forum (Piazza), aiding 3000+ George Mason CS students

Projects

Viewee   **November 2024**
- Created conversational voice AI interviewer for technical SWE interviews with 75+ coding problems and real time feedback
- Utilized WebSockets and chunking to achieve <1000 ms response time with RAG pipeline on solutions for accurate response
- TypeScript and Next.js frontend, Python backend with STT and TTS APIs from Deepgram with GPT-4o for feedback

RecMyProfessors   **August 2024**
- Developed a RateMyProfessors chatbot allowing users to get professor details based on filters, classes, ratings, etc.
- Built a web scraping server using Python, Selenium and BeautifulSoup to gather professor data from 100+ universities
- Frontend built with Next.js + React, backend built with Javascript + OpenAI API with storage using Firebase and Clerk auth

Pam Playground   **August 2024**
- Created an AI customer support agent for car dealerships to take customer calls, schedule appointments, inquire inventory
- Utilized WebSockets and streaming techniques to achieve sub 1000 ms response times included with live transcriptions
- TypeScript and Next.js frontend, JavaScript and Node.js backend with STT and TTS APIs from Deepgram with Llama3 API

Awards/Certifications

Hackathons: 2x Headstarter Hiring Hackathon Finalist, 2024; **George Mason Dean's List:** F22, S23, F23, S24, F24, S25