Sameer Sahai

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Education

University of Washington Seattle, WA

B.S. in Computer Science – 3.8 GPA *Expected June 2028*

- Relevant Coursework: CSE 351 (Hardware/Software Interface), CSE 312 (Discrete Math), CSE 311 (Logic), CSE 332 (Data Structures)

Research Experience

Undergraduate Researcher Internship / Seattle Children's March 2026 – Present

University of Washington *Seattle*

- Led a functional annotation project using an enzyme language model (ELM), annotating 87% of previously unannotated genome space via InterPro Family + ELM integration
- Conducting continued pretraining and LoRA fine-tuning of ESM protein language models on curated biological datasets to investigate task-specific adaptation for protein-function analysis and increased rescue accuracy by 7%

Projects

ResuMAX | *Python, PyTorch, Gemini API, React, Tailwind, Node.js, AWS (Cognito, API Gateway, Lambda, DynamoDB, S3)*

- Designed and deployed a full-stack AI career assistant using AWS serverless architecture (Lambda, API Gateway, Cognito, DynamoDB, S3), supporting real-time chat and persistent user sessions.
- Integrated a fine-tuned 3B-parameter Llama LLM and the Gemini API to generate context-aware career guidance, improving response relevance and user engagement.

Helm | *Python, FastAPI, React, TypeScript, Amazon Bedrock, AWS*

- Built a multi-agent coordination engine that reduces compute waste and merge conflicts in AI coding workflows; placed 3rd at AWS Hackathon 2026
- Integrated Amazon Bedrock (Claude Haiku/Sonnet) for intelligent merge arbitration, fleet deduplication, and guardrails across concurrent agent sessions
- Engineered fleet deduplication and merge arbitration achieving 18% cost and 39% wall-time reduction at N=8 agents, and guardrails reducing cost by 45% and wall-time by 55% vs. re-running failed edits

Tasca | *React Native, TypeScript, Supabase, Groq API, Llama 3.1 8B, QLoRA fine-tuning, HuggingFace*

- Building a cross-platform AI task manager in React Native/Expo with natural language task entry, AI-generated daily briefings, and real-time Supabase backend
- Experimented with fine-tuning Llama 3.1 8B using QLoRA on a custom synthetic dataset and developed an end-to-end pipeline for data generation and model training
- Engineered structured LLM outputs and validation logic to reliably translate natural-language requests into actionable tasks and calendar events

Experience

Web Impact — Lead Coding Officer / Web Developer Jan 2026 - Present

University of Washington *Seattle*

- Developed and maintained client-facing website features including navigation components using React for a real-world e-commerce client
- Organized team meetings, delegated tasks, and maintained project momentum during critical development phases

Interactive Intelligence — Research Director Sep 2026 - Present

University of Washington *Seattle*

- Mentor 5+ research teams through quarter-long projects, shaping research questions, experimental approaches, and technical direction while connecting teams with relevant papers, datasets, and computational resources.

Technical Skills

Machine Learning: PyTorch, Scikit-learn, HuggingFace Transformers, LoRA/QLoRA fine-tuning, LLM integration, Pandas, NumPy **Languages**: Java, Python, C/C++, JavaScript, HTML/CSS, C#
Frameworks: React, ASP.NET, SQL (Postgres), .NET MAUI, SQLite, Swift, Tauri
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, AWS(Cognito, Lambda, DynamoDB), Groq