Aryan Jain

818-917-8436 | aryanj@andrew.cmu.edu | aryanj.dev | US Citizen | in | O

EDUCATION

Carnegie Mellon University — Dec 2026
Bachelor of Science in Computer Science, Minor in Machine Learning — GPA: 3.6/4.0

Coursework: Distributed Systems, Computer Systems, Data Structures & Algorithms, ML (PhD), AI, Robotics
Honors/Activities: SCS Dean's List (Fall 2024), CMU AI Safety Initiative, CMU Racing (Autonomous Driving Team)

WORK EXPERIENCE

Amazon Web Services | Incoming Software Development Intern (AI/ML) — May 2025 – Aug 2025

Hadrian | Software Engineering Intern — May 2024 – Aug 2024
- Developed Python/Go backend and Kafka pipeline (<50ms latency) to enable robotic tool-loading and sync with factory state
- Trained and deployed an Azure ML model achieving 98.5% accuracy in fully automated validation of tool position/type
- Cut tool-loading times by 75%, saving 11k technician-hours yearly in building parts for clients such as Anduril and Raytheon

Compos Mentis | Founding Engineer — Aug 2023 – May 2024
- Developed platform using LLMs to accelerate case qualification and legal review, generating $90k revenue from 23 law firms
- Built RAG system with Azure Functions and Airflow DAGs to process 50K+ pages, extract text via AWS Textract, embed documents in Milvus for vector search, and surface case insights using fine-tuned LLMs — speeding up analysis by 8x

Machina Labs | Software Development Intern — Jul 2022 – Sep 2022
- Built React and Python application to streamline part design and generate production specs, deployed on Azure Kubernetes
- Created ML pipeline to improve part alignment with laser scans, applying Bayesian optimization and projection techniques
- Achieved 40% faster iteration and 25% reduced margin of error on parts for clients such as NASA, SpaceX, and the USAF

United Talent Agency | Software Engineering Intern — May 2022 – Jul 2022
- Developed Github and Azure CI/CD workflows for a talent management suite, cutting deployment time and failures by 50%
- Implemented Redis-based observability system logging 2k+ events daily, including API traffic, health checks, and VM activity

PROJECTS

Train of Thought ⬈ | Typescript, Google Cloud, Next.js, Vercel AI
- Built multi-agent LLM system capable of chain-of-thought reasoning and recursive subproblem validation with Google Gemini
- Integrated features such as agent backtracking, prompt decomposition, safety and correctness validation, and output critique
- Deployed chat interface and tested on 20+ programming puzzles, achieving ∼80% increase in passed tests vs. standard model

TexPilot ⬈ | Typescript, Python, Perl, LlamaIndex, AWS Lambda, S3
- Built a Github Copilot-style browser extension for LaTeX code generation, autocompletion, and explanations with LLaMA 2
- Created real-time (<450ms) Python backend for context-aware completions using indexed LaTeX code/docs via LlamaIndex

File-Caching Proxy ⬈ | C, Java, RMI, JMeter, Valgrind, GDB
- Engineered a low-latency distributed system for remote file operations using a server, caching proxy, and interposition library
- Reduced file access latency by 70% in simulated loads using a LRU chunk caching mechanism, achieving a 90% cache hit rate
- Designed server-proxy protocol using Java RMI to safely handle 300+ concurrent clients with consistent open-close semantics

FireFinder ⬈ | AWS, C++, Node.js, React Native
- Developed real-time pipeline for fire detection and location-based evacuation routing within 3 seconds of a fire outbreak
- Integrated AWS IoT, S3, and Lambda to trigger alerts and stream sensor data from a prototype Arduino-based fire detector

ACHIEVEMENTS

VEX Robotics World Championship (2x) | Achieved top ∼30 out of 11k teams as Team Captain (2019-23)
AWS Certified Solutions Architect | **Lockheed Martin Scholar ($40k)** | **Edison International STEM Scholar ($50k)**

TECHNICAL SKILLS

Languages: C, C++, Python, Javascript, Typescript, Java, Go, SQL, Bash, HTML/CSS
Services: AWS, Azure, GCP, Databricks, Kubernetes, Airflow, Spark, Elasticsearch, Kafka, Redis, MySQL, PostgreSQL
Tools/Frameworks: Git, Docker, Node.js, React.js, Express, Flask, Django, gRPC, GraphQL, Tensorflow, PyTorch