

EDUCATION

Carnegie Mellon University <i>Bachelor of Science in Computer Science, Minor in Machine Learning</i>	Dec 2026 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
<ul style="list-style-type: none">Developed Python/Go backend and Kafka pipeline (<50ms latency) to enable robotic tool-loading and sync with factory stateTrained and deployed an Azure ML model achieving 98.5% accuracy in fully automating validation of tool position/typeCut 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
<ul style="list-style-type: none">Developed platform using LLMs to accelerate case qualification and legal review, generating \$90k revenue from 23 law firmsBuilt 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
<ul style="list-style-type: none">Built React and Python application to streamline part design and generate production specs, deployed on Azure KubernetesCreated ML pipeline to improve part alignment with laser scans, applying Bayesian optimization and projection techniquesAchieved 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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">Built multi-agent LLM system capable of chain-of-thought reasoning and recursive subproblem validation with Google GeminiIntegrated features such as agent backtracking, prompt decomposition, safety and correctness validation, and output critiqueDeployed 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
<ul style="list-style-type: none">Built a Github Copilot-style browser extension for LaTeX code generation, autocompletion, and explanations with LLaMA 2Created 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
<ul style="list-style-type: none">Engineered a low-latency distributed system for remote file operations using a server, caching proxy, and interposition libraryReduced file access latency by 70% in simulated loads using a LRU chunk caching mechanism, achieving a 90% cache hit rateDesigned server-proxy protocol using Java RMI to safely handle 300+ concurrent clients with consistent open-close semantics
FireFinder 🔗 AWS, C++, Node.js, React Native
<ul style="list-style-type: none">Developed real-time pipeline for fire detection and location-based evacuation routing within 3 seconds of a fire outbreakIntegrated 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