Yav Rohatgi

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EDUCATION

University of Massachusetts Amherst *Sept 2021 - May 2025*

- **Bachelor of Science in Computer Engineering with departmental honors & mathematics minor**, GPA: 3.82
- **Honors**: Chancellor's Award (Merit Scholarship, $48000) and Dean's list (every semester)
- **Coursework:** Data Structures and Algorithms, Machine learning, Secure Distributed Systems, Operating Systems, Artificial Intelligence, Computer Networks, Embedded Systems, Scientific Computing & Security Engineering

TECHNICAL SKILLS

Languages: Python, C, C++, SQL, PowerShell, Bash

Frameworks and Libraries: TensorFlow, PyTorch, JAX, Scikit-Learn, Hugging Face, Langchain

Tools: Docker, Kubernetes, Git & GitHub, Azure, AWS

EXPERIENCE

DevOps Engineer *Jun 2025 – Current*

Sonet.io

- Automated large-scale VM provisioning to deploy 70+ servers efficiently, reducing manual setup time by 6%
- Implemented alerts using Azure Monitor to detect downtime over 60 seconds and trigger storage warnings at 80% capacity

DevOps Engineer Intern *May 2024 – Aug 2024*

Sonet.io

- Engineered 5+ PowerShell scripts to automate application installation and configuration for 50+ remote machines
- Reduced manual setup time by 7%, improving efficiency and productivity by eliminating repetitive configuration tasks
- Implemented logout scripts to remove guest-created data, ensuring a clean system state and optimizing storage usage by 5%
- Built Kubernetes log-monitoring scripts to track 10+ applications across 3+ clusters, improving log retrieval speed by 8%

Teaching Assistant *Sep 2023 – Dec 2023*

University of Massachusetts Amherst

- Guided 150+ students in developing efficient and user-friendly scripts while improving performance and robustness
- Collaborated with the instructor and held weekly office hours to ensure seamless class operations and student support

Software Engineer Intern *May 2023 – Aug 2023*

Samsung Data Systems

- Managed a database of 50,000+ reviews from e-commerce sites, generating 100+ keywords to analyze smartphone trends
- Enhanced Vader libraries to identify product features influencing profit and loss in market share for 100+ phones
- Created a sentiment analysis program in Python, improving classification accuracy by 25% & enabling product insights

PROJECTS

Sign Language Detection Gloves | Machine Learning, Python, C++, TensorFlow, IMUs & BeagleBone Black

- Captured high-frequency motion data by tracking 6-axis IMU readings on each finger, enabling precise gesture recognition
- Processed and stored sensor data as a discrete-time signal, timestamped via MCU clock to detect sequential hand signs
- Trained a lightweight ML model with TensorFlow Lite, achieving 92% accuracy in real-time gesture classification

AI Assisted Approach to Math Tutoring with Professor Lixin Gao | LangChain, Prompt Engineering & Hugging Face

- Enhanced LLM math performance using N-shot, Chain of Thought, Symbolic Reasoning, and RAG
- Generated 5000+ diverse math questions from lecture notes with 90% solution accuracy and improved BLEU score by 11.6%
- Outperformed baseline reasoning on MATH and GSM8K datasets along with improvements in multi-step problem solving

Tiny Large Language Model | Machine Learning & JAX

- Designed sequence prediction models (constant, linear, MLP, double-layer networks) using JAX
- Fine-tuned architectures with SGD, reducing loss by 66% (from 4.27 to 1.44 in double MLP), enhancing text clarity