Saathveek Gowrishankar

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EDUCATION

University of Illinois Urbana-Champaign   Graduation: May 2026
B.S. in Computer Engineering, Minor in Data Science

Nanyang Technological University   Jan 2025 - May 2025
Cultural exchange semester in Singapore

Courses: Machine Learning, Tiny ML, Parallel Programming, Computer Systems Engineering

EXPERIENCE

Machine Learning and Infrastructure Intern   May 2025 - Aug 2025
Blue Cross and Blue Shield of Illinois
- Integrated machine learning into capacity planning, reporting to the Executive Director of Infrastructure.
- Developed a multi-model seasonal forecasting system to drive proactive CPU, RAM, and storage upgrades.
- Designed imputation and fallback strategies to maintain forecast accuracy despite irregular historical data.
- Automated problem reporting for 2,700+ apps, improving speed 61% and coverage 37% to prevent server failure.
- Drove AIOps scalability planning by analyzing membership and distributed resource usage trends with PySpark.

Software Engineering Intern   May 2024 - Aug 2024
Mullbry, Inc. (Startup)
- Collaborated directly with the CEO to transform manual processes into automated, AI-driven workflows.
- Implemented OpenAI API function calling in Python to accelerate borrower approval times by 30%.
- Integrated Plaid, credit, and self-reported data using Pandas to build accurate, equitable borrower profiles.
- Built a modular testing framework to evaluate LLM output accuracy across diverse analytical scenarios.
- Designed a Node.js backend to generate dynamic login QR codes, automating and easing client onboarding.

Human-Robot Interaction Researcher   Aug 2022 - Aug 2025
Human Factors and Aging Lab at UIUC
- Co-authored a pending ACM THRI publication on older adults' evolving relationships with assistive robots.
- Optimized data collection and citation generation via automated Python scripts, accelerating timelines by 40%.
- Managed data preparation, modeling, and analysis, connecting regularly with lab leaders on evolving objectives.

LEADERSHIP

President and Advisor   Jan 2024 - Present
Engineers Without Borders at UIUC
- Led an executive board of over 20 chapter leaders, overseeing a chapter of over 170 active members.
- Pioneered a membership incentive system, improving membership by 81% and member retention by 26% YoY.
- Advised on the operations of 4 independent engineering service projects with a total budget exceeding $150,000.
- Mediated conflicts and fostered mentorship, reinforcing chapter cohesion and sustaining long-term momentum.
- Collaborated with professionals to implement a concrete vehicular bridge for a rural village of 25,000 in Malawi.

PROJECTS

Tiny ML Embedded Keyword Spotting   Jan 2025 - May 2025
Nanyang Technological University
- Deployed real-time audio classification on an Arduino BLE Sense using TensorFlow Lite for Microcontrollers.
- Trained a quantized CNN in Keras for on-device keyword spotting in resource-constrained environments.
- Validated inference accuracy and latency with real-time benchmarking and iterative model compression.

An ML Approach to Understanding Older Adults' Perspectives   Jan 2023 - Apr 2024
Human Factors and Aging Lab at UIUC
- Analyzed how prior tech familiarity impacts older adults' willingness to engage with emerging technologies.
- Built Lasso and Ridge regression models using scikit-learn and statsmodels to estimate trust in assistive robots.
- Presented findings for two consecutive years at the Illinois UGR Symposium to an audience of experts and peers.

SKILLS

Languages: Python (Pandas, TensorFlow, scikit-learn, etc.), C++, C, CUDA, RISC-V Assembly
Tools: Azure DevOps, Git, Docker, Databricks, Power BI, Dynatrace, SolarWinds