

# Saathveek Gowrishankar

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## EDUCATION

### University of Illinois Urbana-Champaign

Expected Graduation: May 2026

B.S. in Computer Engineering, Certificate in Data Science

### Nanyang Technological University

Jan 2025 - May 2025

Cultural exchange semester in Singapore

**Courses:** Machine Learning, Parallel Programming, Computer/Operating Systems, Data Structures, Algorithms

## EXPERIENCE

### Infrastructure Engineering Intern

May 2025 - Present

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.
- Automated problem reporting for 2,700+ apps, improving speed 60% and coverage 35% to prevent server failures.
- Drove AIOps scalability planning by analyzing membership and distributed resource usage trends with PySpark.
- Consolidated data from Dynatrace, SolarWinds, and storage logs into Databricks to support capacity analysis.

### 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%.
- Built a modular testing framework to evaluate LLM output accuracy across diverse analytical scenarios.
- Integrated data from Plaid, credit reports, and self-reported liabilities to evaluate borrower profiles.
- Designed a Node.js backend to generate dynamic login QR codes, automating and easing client onboarding.

### Human-Robot Interaction Researcher

Aug 2022 - Present

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 project timelines.
- 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, strengthening chapter cohesion and sustaining long-term momentum.
- Collaborated with industry professionals to design a concrete vehicular bridge for a rural village 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

**CE/CS:** Python, C++, C, CUDA, Git, Docker

**ML/DS:** TensorFlow, PySpark, Keras, statsmodels, scikit-learn, Pandas, NumPy, Seaborn

**INFRA:** Databricks, Azure DevOps, Power BI, SQL, Dynatrace, SolarWinds