

# SHAMANTH KUTHPADI

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## EDUCATION

**University of Massachusetts at Amherst, 4+1 Accelerated | MS in Computer Science | Amherst, MA** Dec. 2025

**University of Massachusetts at Amherst, BS in Computer Science | Amherst, MA** GPA: 3.94 / 4.0 Dec. 2024

Courses: Machine Learning | Probabilistic Graphical Models | Algorithms for Data Science | Web Programming

Research: Undergraduate Research Volunteer

Clubs: Product Management Club | Theory Group | Machine Learning Club

## EXPERIENCE

**Machine Learning Research Intern | IOMICS Corporation** June 2024

- Provided data-driven recommendations to the CTO and chief engineer, contributing to strategic decisions in product development and deployment
- Reviewed 50+ research papers on advanced machine learning and causal inference/discovery methodologies
- Utilized cutting-edge tools such as DoWhy and causal-learn to explore and answer causal questions in omics data
- Developed and delivered tutorials and theoretical presentations on causal analysis, effectively communicating complex concepts to the company's engineers

**Undergraduate Course Assistant (UCA) | University of Massachusetts at Amherst** Sept. 2023 - June 2024

- Collaborated directly with professors and course instructors to foster learning 300+ students
- Engaged directly with students to provide course assistance in a broad category of concepts

**Learning Resource Center (LRC) Peer Tutor | University of Massachusetts Amherst** Sept. 2023 - Dec. 2023

- Mentored 30+ students in a broad category of courses within the computer science department, earning an extension contract as a result of my effectiveness
- Selected as a distinguished hire from a pool of hundreds of candidates through two rounds of interview where I was tested on communication skills and academic aptitude

**Undergraduate Research Volunteer (URV) | University of Massachusetts at Amherst** June 2023 - Sept. 2023

- Developed research skills in the field of data science and machine learning
- Shadowed PhD research work in Approximate Nearest Neighbor(ANN) search algorithm, gaining exposure to lab work
- Calculated performance metrics of various ANNs systems and visualized them graphically

## SKILLS

Languages	Python, AWS/S3, TypeScript, JavaScript, Java, C, C++, Rust, Matlab
Developer Tools	Docker, GitHub, Git, Agile Methodology, Jupyter Notebook, Linux/Unix
Software	TensorFlow, PyTorch, MongoDB, NodeJS, PostgreSQL, Pandas, NumPy, MRtrix3, Svelte, React, Next.js, Bootstrap, Milvus (DiskANN)
Certifications	Build a Data Science WebApp with Streamlit and Python, Coursera – (2021)

## PROJECTS

**ESP32 WiFi Enabled Doorbell/Camera | Arduino, 3D Printing, Circuit Design** Feb. 2023 - May 2023

- Developed a WiFi enabled door camera that sends live footage via SMS when a doorbell is rung by implementing the automated response system
- Designed the 3D design (CAD) to print mechanical parts of the product
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**SkoutaLab Chemistry Webapp | Node.js, MongoDB, TypeScript** Jan. 2024 - May 2024

- Built backend for a responsive and interactive web app serviced for 200+ students, interacting directly with professional clients to provide the best possible software
- Developed functional web systems with a team to enable students with the opportunity to learn chemistry in an interactive way

**Accent Classifier | Python, librosa, Convolutional Neural Net** Dec. 2024

- Developed an audio-based accent classifier capable of distinguishing between regional accents.
- Achieved a high accuracy of 90% by fine-tuning across hundreds of parameter setting and tens of network architectures.
- Collected and processed raw audio data corresponding to various regional accents.