

# Om Padmani

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## EDUCATION

### University of Illinois at Urbana-Champaign

Master of Computer Science

Remote

Jan. 2024 – Present

### University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Engineering

GPA: 3.72

Champaign, IL

Aug. 2021 – Dec. 2024

**Coursework:** Artificial Intelligence, IoT and Cognitive Computing, Distributed Systems, Computer Systems

Engineering, Algorithms and Models of Computation, Computer Organization Design, Cloud Computing Applications

## CERTIFICATIONS

Microsoft AI-102: Azure AI Engineer Associate

July 2024

Microsoft AI-900: Azure AI Fundamentals, Microsoft AZ-900: Azure Fundamentals

June 2024

## EXPERIENCE

### Client Systems Engineer

Epic Systems

February 2025 – Present

Verona, WI

- Served as a Client Systems Engineer and worked with multiple healthcare organizations in order to ensure their systems functioned properly, in specific regard to their servers, and aided in troubleshooting as issues arose
- Developed and maintained PowerShell scripts run on a daily basis to audit healthcare system configurations
- Led a group that developed searches which ran for healthcare organizations in order to gather critical information
- Heavily developed transferrable skills such as task and time management, responsiveness, and communication

### Software Developer Intern

Brunswick Corporation

May 2022 – May 2024

Mettawa, IL

- Served as a Software Developer Intern on an Agile development team building an IoT-based app for boat owners
- Designed and developed an image recognition Python solution that verified each branded app's pages matched their expected color and brand theme, which reduced the testing cycle for each app release by 5%
- Developed a Python data tool which aggregated multiple real boat data files in JSON to then filter, reconfigure, and order the data into a CSV which allowed for a replay functionality that was used by the QA team daily
- Collaborated with a partner to develop a load testing solution which generated tens of thousands of realistic boat data entries across multiple simulated Azure IoT devices for ingestion into a cloud platform

## PROJECTS

### Out-of-Order RISC-V Processor | *SystemVerilog*

October 2024 - December 2024

- Collaborated as a group to design and develop an Explicit Register Renaming based OoO processor with advanced optimizations such as a Split Load/Store Queue, Next-Line Prefetcher, and G-share Branch Predictor with BTB

### RAG Chatbot | *Python, Pinecone, OpenAI, Langchain, NextJS, Flask*

July 2024 - August 2024

- Utilized Flask to create an API that calls both Pinecone and OpenAI APIs through Langchain in order to effectively embed the prompt, retrieve similar texts from the Pinecone database, and then inject this data into the original prompt to allow the OpenAI LLM to reference them in its response as private grounding data

### Machine Learning ECG Sensor | *Python, TensorFlow, Raspberry Pi*

March 2024 - May 2024

- Developed a ML ECG sensor achieving 77% accuracy with a partner using a Raspberry Pi that measures and diagnoses your ECG and sends the results by email. Attained an approximately 20 second end-to-end solution
- Implemented both a classification model trained on MIT data as well as an autoencoder model for anomaly detection and then aggregated the results for higher accuracy

### x86 Operating System | *x86, C*

October 2023 – December 2023

- Collaborated with a group to develop an operating system from scratch consisting of a file system, paging, multiple scheduled terminals, IDT, keyboard handler, assembly linkage, system calls, and user level program execution

## TECHNICAL SKILLS

**Languages:** Java, Python, C, C++, Go, X86, SystemVerilog, HTML, SQL, MUMPS

**Frameworks:** React, Next.js, Flask

**Developer Tools:** Git, Docker, Microsoft Azure, VS Code, Anaconda, Postman, MongoDB, AWS, Tableau

**Libraries:** pandas, NumPy, Matplotlib, Tensorflow