Yashwant Ponnaganti

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Education

University of Maryland, College Park — College Park, MD
Bachelor of Science in Computer Science (Machine Learning Specialization) — *Expected May 2028*

Double Major: Applied Mathematics
Presidential Scholarship Recipient

Experience

ML Engineering Intern — June 2025 – Present
Brown University & University of Rhode Island — *Remote*

- Built a Retrieval-Augmented Generation (RAG) chatbot for Polycystic Kidney Disease support, processing 100+ research papers using FAISS embeddings.
- Developed a scalable, low-latency asynchronous backend for real-time query responses, enhancing user experience.
- Collaborated with cross-functional teams to integrate OpenAI GPT-4o-mini for advanced language processing.

Computer Hardware Engineering Intern — June 2024 – Aug 2024
University of Rhode Island, Biomedical Engineering — *Kingston, RI*

- Developed a smart bottle accessory for real-time hydration reminders, improving user hydration habits.
- Conducted an international market survey with 90+ participants to assess product-market fit, guiding product development.
- Presented the prototype at IEEE MIT URTC 2024, receiving positive feedback from industry experts.

ML Engineering Intern — June 2023 – Aug 2023
University of Rhode Island, Biomedical Engineering — *Kingston, RI*

- Developed a Human Activity Recognition (HAR) model using smartwatch data to predict ADHD onset in children (ages 7–11).
- Implemented feature engineering and regression algorithms for accurate activity tracking, achieving high prediction accuracy.
- Utilized Python and Scikit-learn for model development, enhancing data processing efficiency.

Projects

Smart Hydration System | *Arduino, Sensors, Embedded Systems* — June 2024 – Aug 2024

- Engineered a smart hydration system using Arduino and sensors to provide real-time hydration reminders.
- Integrated haptic feedback and LED indicators for user notifications, enhancing user interaction.

ADHD Prediction Model | *Python, Scikit-learn, Data Analysis* — June 2023 – Aug 2023

- Developed a predictive model for ADHD onset using smartwatch data, focusing on feature engineering and regression techniques.
- Visualized data insights using Matplotlib to support model findings and improve interpretability.

Technical Skills

Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS
Frameworks: Flutter, FastAPI, Scikit-learn
Developer Tools: Git, Docker, Arduino, Vector Databases, FAISS
Libraries: NumPy, Matplotlib, OpenAI GPT-4o-mini