

RUDRESH UPADHYAYA

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EDUCATION

University of Wisconsin-Madison
BS Computer Science, Data Science *GPA: 3.9*

Madison, WI
September 2020 - May 2024

WORK HISTORY

Inorbit.ai
Software Engineer

Mountain View, CA
June 2024 - Present

- Developed a custom AI integrated with Slack for real-time queries, enabling access to over 100 types of on-demand insights, including CPU usage and fleet health, resulting in an additional 15 hours of uptime each month and significantly reducing unplanned maintenance.
- Created algorithms using ROS for real-time occupancy detection and access control, coding mutex locks and priority queues to manage robot entry into restricted areas, reducing multi-robot congestion by 25% and enhancing safety by dynamically restricting simultaneous access.
- Designed an IoT connector enabling seamless telemetry and command handling, achieving faster response times and consistent stability in door and elevator operations, processing over 50 device commands per minute for optimized system performance.

Ernst and Young
Generative AI Intern

Remote
May 2023 - August 2023

- Worked extensively on Langchain, a language model-powered framework, to develop and optimize applications with advanced language processing capabilities.
- Utilized LlamaIndex (GPT Index), a specialized data framework, to design and implement a company-specific LLM application leveraging GPT 3.5, enabling precise business use cases.
- Engineered and optimized prompt solutions to handle complex user queries, enhancing decision support accuracy by enabling more precise responses and decreasing response time by 60%.

UW-Madison Department of Computer Science
Undergraduate Teaching Assistant

Madison, WI
September 2022 - April 2023

- Developed debugging exercises and projects for a Java GUI Applications course, enhancing students' bug identification and resolution skills.
- Led interactive office hours and lab sessions, facilitating students' understanding of Java concepts, troubleshooting code, and achieving a 25% increase in average assignment grades.
- Developed an automated grading tool using Python scripts to analyze and score student submissions, reducing grading time by approximately 15 hours per week.

HelpNow(YC Startup)
Software Engineer Intern

Mumbai, India
May 2022 - August 2022

- Developed a Python-based web application with interactive scheduling interfaces, reducing ambulance response time by 70% for improved emergency response.
- Created and optimized server components using Zoho Creator, utilizing tables and Deluge scripting to ensure efficient data management and workflow automation.
- Designed a prototype console integrating features such as ride booking, cost estimation, and more, leveraging object-oriented programming and API integration for functionality.

SKILLS

Programming Languages:	Python, Java, SQL, R, Node.js, C, JavaScript, MATLAB
Operating Systems:	Windows XP, Mac OSX, iOS, Linux, Android
Tools & Technologies:	Docker, MongoDB, Agile, Jira, Git, Android Studio
Additional:	TensorFlow, PyTorch, ROS, LangChain, LlamaIndex, CI/CD, Docker Hub

PROJECTS

Epic Systems: Medical Expert Application <https://github.com/mmusani12/epicteam1>
Designed a medical information translation platform with OpenAI backend and React front end, employing Kanban, self-selection, and WIP limits for efficient development.

FIFA Visualiser
Created a predictive model for estimating future player performance in Soccer using linear regression, analyzing factors like height, weight, etc. using hypothesis tests.