RAKSHANA JAYAPRAKASH

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EDUCATION

University of Illinois, Urbana-Champaign   *Aug 2022 - May 2024*
Master of Computer Science   3.92 / 4
Amrita Vishwa Vidyapeetham, India   *Jul 2017 - Jul 2021*
Bachelor of Technology - Computer Science   8.83 / 10
Relevant Coursework: Software Engineering, Cloud Computing, Database Systems, Applied Machine Learning, NLP

EXPERIENCE

ARCO/Murray Design Build | Chicago, Illinois
Research and Development Intern - Fall   *Sep 2023 - Dec 2023*
- Leveraged DeepSolar, a deep learning framework, to scan satellite images of Chicago and its suburbs and generate a comprehensive database of solar installations within this region.
- Deployed AWS EC2 instances and setup S3 buckets to efficiently source, process & store over 500,000 satellite images using the Google Static Maps API & employed Amazon Mechanical Turk for manual annotation.

Research and Development Intern - Summer   *May 2023 - Sep 2023*
- Collaborated on the full stack application development of an energy analysis app that facilitates 3D modeling of buildings (React, Three.js) and processing over 200 input parameters to generate building energy analysis and cost estimates.
- Reduced manual cost analysis time from 50 hours to 5 hours per project that ensured a 90% increase in productivity.
- Developed an AI-driven chat-bot (web app) using Langchain, React, Pinecone and the ChatGPT API as the back-end, with a focus on streamlining and enhancing access to organizational data.
- Streamlined setup and CRUD operations for AWS S3 Storage buckets and led the complete implementation and interaction of the application's database in Supabase's PostgreSQL.

TIMAN Labs | University of Illinois at Urbana-Champaign   *Oct 2022 - Aug 2023*
Fullstack Software Engineer
- Contributing to an open source service (*website* , *code*) where 1000+ active users share, save and search parts of websites to personal/public communities using Next.js, Flask, MongoDB, Azure and Redis Cache.
- Led the development for the system's recommendation pipeline, using extracted text from user submissions, search history, and interaction data. Boosted average user click rate from 2 to 5+ clicks daily.
- Designed and developed the user interface for web app and chrome extension. Programmed query search feature using AWS Elasticsearch and used Redis cache to optimize the server load with a 60% reduction rate in DB calls.

Lowe's | Bengaluru, India   *Jun 2021 - Jun 2022*
Associate Infrastructure Engineer
- Developed a RESTful API using reactive programming in Java Springboot that parallelized 3+ API calls from different microservices and integrated them into a wrapper service, reducing response times by 70%.
- Used Postman & Swagger to test and document APIs, and load tested them in Apache Jmeter. Performed comprehensive analysis on the legacy service and prototyped user centered designs on Figma.

Honeywell Technology Solutions | Bengaluru, India   *Jan 2021 - Jun 2021*
Software Development Intern
- Built 2 product dashboards using D3.js visualization libraries to highlight KPIs & report anomalies in the data.

TECHNICAL SKILLS

Languages	Java, Python, Dart, C, Javascript, Ruby, HTML, CSS
Databases	MySQL, Postgres, Firebase, Supabase, MongoDB
Frameworks/Tools	ReactJS, Next.js, Node, MATLAB, Flutter, Docker, Elasticsearch, Springboot, Apache Kafka, AWS EC2, S3, Langchain, Flask, Git, Figma

PROJECTS

Research Assistant | Partnered with OSF HealthCare   *Oct 2022 - Present*
- Developing an AI-driven compliance management system (web app) by leveraging NLP algorithms to detect & rank regulation changes, find their associations in internal policies, & alert corresponding compliance officers.
- Pitched app to *YCombinator 2023* & got selected to interview among 10000 applicants validating the idea's potential.

LEADERSHIP AND EXTRACURRICULARS

- ***FACE*** **(CS Club):** Led & mentored a team of 20 to organize weekly events as the secretary of the club.
- Selected to interview for YCombinator among 10,000 applicants, ranking in the top 5% of participants.