Abhinav Annabathula

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EDUCATION

Purdue University   **West Lafayette, Indiana**

B.S. in Computer Science - Machine Learning and Software Engineering   *Graduation Date: May 2026*

Minors: Math, Economics; Certificates: Data Science

SKILLS & INTERESTS

Skills: Python, Java, C, Javascript, SQL, Neo4j, R, C#, RESTAPIs, RAG, Agile, Google OAuth, Jira, AWS

Tools/Framework: Node, React, Flask, Django, Express, Vue, MySQL, MongoDB Compass, Langchain

Soft Skills: Leadership, Team Player, Growth Mindset, Communication, Problem Solver, Adaptable, Learner

INDUSTRY EXPERIENCE

Poozle   **Montclair, New Jersey**

Software Engineer Intern   *Jun 2024 - Present*

- Contributed to a start-up aimed at simplifying job applications by allowing users to swipe on job listings to apply.
- Developed a full-stack user registration and verification system using Node.js, Express, and MongoDB.
- Implemented email verification with Nodemailer, leveraging SMTP for secure email delivery.
- Utilized express-session for managing user sessions, enhancing security and user experience.
- Implemented geolocation to capture user location data during registration, integrating it into the MongoDB database.
- Conducting research on AI-based matching algorithms to optimize user-job posting alignment

No Limit Living   **West Lafayette, Indiana**

Software Engineering Intern   *Jul 2024 - Present*

- Refactoring the online presence of the real estate development company
- Spearheaded the migration of a MERN website to AWS EC2, resulting in a 66% reduction in monthly costs
- Implemented a CI/CD pipeline using GitHub Actions with Docker containers and self-hosted GitHub runners
- Developing python based dashboard to efficiently display web-scraped data that provides insights on properties

Lockheed Martin   **West Lafayette, Indiana**

Student Developer   *Aug 2022 - Dec 2022*

- Directed a backend team pivotal in developing core functionalities. Collaborated within a team of hybrid developers
- Prioritized agile and scrum methodologies with regular sprint reports, cross-team and client communication
- Utilized Django, Python, and Docker to develop a web application with internal use.

RELEVANT EXPERIENCE

Wu Group - Purdue University   **West Lafayette, Indiana**

Research Intern   *Jun 2024 - Present*

- Developed a RAG-assisted Zotero-based python app to improve efficiency in answering researchers' queries.
- Used Tesseract OCR to extract and PDF text; Developed chunking script to input into vector database.
- Inputted chunked data into Pinecone and utilized ADA-002 embeddings for accurate vector representation.
- Used GPT 3.5 Turbo as a interface with Langchain to handle queries and perform nearest neighbor searches.
- Conducted optimization experiments on chunk size, embeddings, and text generation models to enhance performance.

CAMPUS INVOLVEMENT

We Are Saath: Mental Health awareness club. Creating Podcast to keep the campus aware about help and opportunities

Datamine: Representing a client for a software development team. Giving requirements and evaluating their progress

Phi Theta Kappa: Served as Vice President of Communications; Currently mentor for leadership team