Paras Mittal

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EDUCATION

Purdue University

West Lafayette, IN

B.S. Computer Science (specializing in Machine Learning) and Mathematics

Aug 2024 - May 2027

• Relevant Coursework: Data Structures and Algorithms, Computer Architecture, Linear Algebra II

SKILLS

Languages: Python, JavaScript, C/C++, Java, R, Mathematica

Technologies: LangChain, FastAPI, Azure (Cosmos DB, AI Search), Git, LaTeX, OAuth2.0, Google Cloud,

Django, ARMv8

EXPERIENCE

Xerox Rochester, NY Software Engineering Intern June – Aug 2025

- Developed autonomous support chatbot with **Python** and **LangChain's ReAct framework**, implementing chain-of-thought reasoning and tool-calling to diagnose Xerox product issues
- Built FastAPI backend with Azure Cosmos DB for storage and deployed GPT-40 for intelligent responses
- Taught engineers and customer support to use my tool to save time
- Collected data via reverse engineering and web scraping of Xerox sites for videos and product documentation
- Implemented auth with OAuth2.0 from scratch

Frintz (startup)

Rochester, NY

Software Engineering Intern

Aug - Oct 2024

• Built ad-targeting using **computer vision** to correlate customer images to precise industry classification codes

Spraying Systems Chicago, IL

Research Intern

May – Aug 2023

- Built RAG system using **GPT-3.5** and **Azure AI Search** to allow sales to quickly find information across product documentation
- Aggregated 4000+ detailed product specification documents and made them searchable, allowing a major time save for the Sales team

RESEARCH EXPERIENCE

Purdue University Undergraduate Researcher, Advisor: Prof. Chunwei Liu

West Lafayette, IN Oct 2025 – Present

• Conducting research in databases and AI, currently focusing on improving RAG (retrieval-augmented generation) retrieval systems through coreference resolution techniques

Projects

Email Sentinel (GitHub)

Jan 2024 - Mar 2024

• Built open-source app to monitor email inboxes, classify emails with LLMs, and notify users with Telegram/Twilio APIs

ACHIEVEMENTS

Tutored 60+ students from 9 countries as a volunteer tutor at schoolhouse.world in math/English Ranked #44 nationally amongst US high schools in the CMU picoCTF cybersecurity competition Qualified for the New York State Mathematics League finals