

Yash Gupta

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EDUCATION

University of Wisconsin, Madison

Madison, WI

Bachelor of Science in Computer Science and Data Science, GPA 3.74

Expected May 2026

- **Relevant Courses:** Advanced Data Structures & Object Oriented Programming, Distributed Systems, Machine Learning, Database Systems, Algorithms, Operating Systems, Data Visualization, Statistical Inference in R, Linear Algebra, Calculus

EXPERIENCE

Incoming Software Engineer Intern

May 2025 – Aug 2025

Samsara

San Francisco, CA

- Working on cloud backend media systems using Go, Python (FFMpeg), and TypeScript to support safety event processing, video optimization, and ML integration.

Software Engineer Intern

May 2024 – Aug 2024

Qualcomm

San Diego, CA

- Collaborated with cross-functional teams on dynamic slot reallocation for Snapdragon emulation machines using Agile methodologies, leveraging sprint planning and standups while managing epic on Atlassian JIRA
- Developed a parallel ETL pipeline processing **50GB+** of JSON log data from a network drive with multithreaded Python and SQLite3; implemented real-time analytics dashboards in AWS QuickSight
- Led research, implementation in Python, back-testing, and deployment into production of a Q-learning reinforcement learning model for dynamic slot reallocation, integrating a Prophet time series-based reward function, reducing wasted pending job delays by **28%**

Product Intern

Jun 2023 – Oct 2023

The Level Company

New York City, NY

- Built sequential LLM models with GPT-4 and Langchain in Python and utilized advanced prompt engineering techniques to generate personalized sales messaging; leveraged Google Sheets API to record message iteration pipeline
- Automated advisor sourcing by integrating LinkedIn Sales Navigator with Python scripts to scrape and filter profile data, identifying **over 200 new advisors**, significantly reducing manual effort and improving efficiency
- Enhanced reengagement email campaigns using SendGridAPI and Python, resulting in **increased engagement by 50%**

Research Intern

Jun 2020 – Mar 2023

UC San Diego Division of Biomedical Informatics

San Diego, CA

- Developed a cross-cloud (AWS, GCP, Azure), blockchain-based system for federated medical data logging using Ethereum, Solidity, and Go-Ethereum (Geth), reducing query response time by **81%** compared to centralized solutions
- Designed and implemented an interactive front-end with Java, HTML/CSS, and Web3j, integrating automated table generation and real-time blockchain querying to enhance usability across **13 major health institutions**.
- **Co-authored** a JAMIA [publication](#), presenting to National Institute of Health officials

PROJECTS

enRollBadge | [ReactJS](#), [TailwindCSS](#), [Python](#), [DigitalOcean](#), [Shell](#), [SQLite3](#), [Flask](#) | [enrollbadge.com](#)

- Led a team of 4 to build a real-time enrollment notifier for UW–Madison students, solving high-demand class access issues; scaled to **1,100+ users** and received institutional interest from multiple universities
- Designed intuitive, minimalistic frontend in ReactJS and TailwindCSS with async API calls, a dynamic search table, and a centralized subscriptions panel for seamless class management
- Engineered backend in Flask (Python) to poll internal university APIs via rotating proxies, parse JSON data, and trigger notifications; deployed on DigitalOcean with SQLite3, cron jobs, and Nginx for scalable, low-cost hosting

Zone In | [React JS](#), [Python](#), [Material UI](#), [Three JS](#), [Flask](#), [DALL-E](#), [Langchain](#) | [Devpost](#)

- Developed a chatbot using Langchain, HuggingFace embeddings, and ChromaDB to process zoning queries, integrating Python-based data preprocessing pipelines and synthetic dataset generation to enhance accuracy and scalability
- Designed a multi-stage image model with Langchain for custom context preprocessing systems and DALL-E for accurate property change visualization, utilizing Flask for seamless frontend deployment
- Integrated Google Maps API, PyPDF, and Pandas to analyze zoning codes and geospatial data; selected as a **top 10 project** at Northwestern's WildHacks

trckr | [Python](#), [SQL](#), [AWS S3](#) & [Lambda](#), [CrewAI](#), [APScheduler](#), [Celery](#) | [Demo](#)

- Developed a full-stack job tracking application, integrating Gmail and Outlook APIs with OAuth2.0 authentication, and implemented modular backend architecture; attracted **50+ users** on the waitlist
- Engineered a multi-agent LLM system leveraging CrewAI, OpenAI, and Flask to process and transform thousands of emails into structured JSON outputs, utilizing Python and AWS Lambda for task management and low-latency performance
- Designed and implemented a highly scalable SQL database integrated with AWS S3, enabling real-time job status updates through asynchronous workflows with APScheduler and Celery to minimize server load

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, SQL, C, C++, R, Bash, Solidity, HTML5/CSS3, Assembly, LaTeX, Typescript, Go

Web/App Development: ReactJS, React Native, TailwindCSS, Flask, Node.js, Django, Material UI, Three.js, Chainlit, Express.js

Machine Learning & Data Analysis: Tensorflow, Pytorch, Scikit-learn, Numpy, Pandas, HuggingFace, ChromaDB, Langchain, OpenAI, Excel

Tools & Platforms: Git/Github, JIRA, AWS (EC2, Quicksight, S3, Lambda), Docker, Kubernetes, Firebase, Google Cloud, SQLite, PostgreSQL, MongoDB, APScheduler, gRPC, Kafka, Cassandra, Spark, Hadoop, Postman, Nginx, DigitalOcean