Ved Tiwari

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Education

University of Illinois Urbana-Champaign — Urbana-Champaign, IL
Bachelors of Science in Computer Engineering — *Expected Graduation: May 2026*

Certifications

AWS Certified AI Practitioner (In Progress) — Expected: Aug. 2024

Experience

Fullstack Software Engineering Intern — Jun. 2024 – Present
JPMorgan Chase & Co. — *Wilmington, DE*

- Engineered a full-stack developer tool to optimize the migration of application instances across cloud pools within the Cloud Foundry environment
- Reduced developer overhead and achieved a 73% reduction in migration time by developing a Java SpringBoot API to automate the migration process
- Designed and implemented a comprehensive UI using TypeScript, CSS, and React to interface with our backend API endpoints
- Integrated Single Sign-On (SSO) to automate authentication for internal developers and app managers, eliminating manual login processes
- Utilized Jenkins CI/CD to deploy frontend and backend application to the cloud
- Successfully migrated 22% of organizational applications, significantly enhancing operational efficiency for Cloud Foundry developers and app managers

Machine Learning Undergraduate Researcher — Jan. 2024 – Present
University of Illinois (Department of Computer Science) PURE Program — *Champaign, IL*

- Investigated the impact of generative large language models (LLMs) such as LLama, GPT-4, and Bard on user-generated content in the social media space, focusing on user interactions, and misinformation
- Assisted mentor to conduct qualitative and quantitative research, surveying 50+ users to understand behavior patterns when exposed to AI-generated false information
- Presented findings to an audience of 100+ attendees at the Illinois research symposium

Backend Software Engineering Intern — Jun. 2023 – Aug. 2023
JPMorgan Chase & Co. — *Wilmington, DE*

- Developed a batch cloud application using AWS to establish seamless connectivity between Amazon S3 and DynamoDB services
- Facilitated highly efficient data transfer and synchronization within the cloud environment, while minimizing time and resource usage in our cluster
- Utilized relational NoSQL strategies for mapping S3 JSON file data onto DynamoDB's metadata structure
- Orchestrated Terraform ArtifactID creation and validated application functionality through Jenkins CI/CD

Projects

LaneSync Vision | *PyTorch, Python, ESP32 Microcontroller, Arduino* — Jul. 2024 – Present

- Developing a HUD to integrate computer vision and lane assistance technologies into 2016 legacy automotive vehicles
- Packaging software on ESP32 hardware, utilizing Arduino for heads-up display projection

Thrive AI (Mobile App) | *Python, Flask, JavaScript, Bootstrap, Chart.JS* — Jun. 2022 – Sep. 2022

- Designed to deliver the most relevant poverty related info to help aid the global poverty crisis
- Used data from the US Census bureau to map past and future poverty predictions
- Employed SciKitLearn framework to make AI-driven predictions of poverty rates around the world

Technical Skills

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript/TypeScript, HTML/CSS
Frameworks and Libraries: PyTorch, TensorFlow, OpenCV, SkLearn, React, SpringBoot, Flask, JUnit, Django
Developer Tools: CloudFoundry, IntelliJ, Git, GitHub, BitBucket, VSCode, PyCharm, Figma, Jenkins CI/CD
Cloud Services: AWS (EC2, S3, DynamoDB), Terraform, Cloud Foundry