Ved Tiwari

XXX-XXX-XXXX | XXXXX@illinois.edu | linkedin.com/in/ved-tiwari | github.com/portfolio | github.com/ved-tiwari

Education

University of Illinois Urbana-Champaign (UIUC) Urbana-Champaign, IL
Bachelor of Science in Computer Engineering *Expected Graduation: Dec 2026*

Coursework: Data Structures & Algorithms, Computer Systems & Programming, Discrete Structures, Digital Systems Laboratory, Computational Linear Algebra, Multivariable Calculus, Differential Equations

Experience

Siebel Center for Computing and Data Science, UIUC Jan. 2025 – Present
Course Assistant - CS225 (Data Structures and Algorithms with C++) *Urbana-Champaign, IL*

- Conduct office hours to assist students with course material, clarify concepts, and answer project questions
- Collaborated with professors and TAs to improve course resources and assignments

Illinois Electric Motorsports (FSAE Team) Jun. 2024 – Jan.2025
Embedded Software Engineer Project Lead *Champaign, IL*

- Optimized BMS firmware by leveraging LTC6811-1 ICs, CAN bus protocols, and Embedded C
- Reduced system latency from **1.3 seconds** to below **100 ms** by streamlining existing SPI/L2C codebase
- Wrote unit tests for all functions and maintained version control through Git

JPMorgan Chase & Co. Jun. 2024 – Aug. 2024
Software Engineering Intern *Wilmington, DE*

- Engineered a full-stack developer tool to optimize application instance migration across CF cloud pools
- Developed a SpringBoot API to automate migrations, and designed an intuitive UI with TS, CSS, and React
- Reduced cloud pool migration time for developers from **1 day to less than 2 hours**

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

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

Projects

Generative Twitter | *Undergraduate Research* Jan. 2024 – Jul. 2024

- Investigated the impact of generative LLMs on user-generated content in the social media space
- Created artificial environment for text subjects using React and TypeScript
- 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

Thrive AI | *Python, Flask, JavaScript, Bootstrap, Chart.JS* Jun. 2022 – Sep. 2022

- Built a mobile app with custom machine learning models to predict air quality trends and offer insights
- Developed Linear Regression ML model in SciKitLearn with historical air quality data to enhance AQI forecast
- Integrated Google Maps and OpenWeather API to deliver real-time location-based air quality and weather
- Enabled data-driven insights by visualizing pollutant data and air quality metrics

Skills

Languages: Python, C/C++, Java, SQL (Postgres), JavaScript/TypeScript, HTML/CSS
Frameworks and Libraries: PyTorch, TensorFlow, OpenCV, Scikit-Learn, React, Spring Boot, Flask, JUnit
Web Technologies: HTTP, HTML/DOM, JavaScript, CSS, AJAX, Web Services, SOA, REST APIs, JSON, XML
Cloud Services: AWS (EC2, S3, DynamoDB), Terraform, Cloud Foundry, Google Cloud Platform (GCP), Azure
Databases: PostgreSQL, MySQL, MongoDB, DynamoDB
Data Science/Machine Learning Tools: Jupyter Notebook, Pandas, NumPy, Matplotlib, Seaborn, SciPy, Keras
DevOps and CI/CD: Docker, Kubernetes, Jenkins, Git, GitHub Actions, Travis CI