

Ishika Bhaumik

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EDUCATION

University of California, Davis

MS, Computer Science

KIIT India

B.Tech Computer Science

Sept 2024 – Expected Mar 2026

Davis, CA

Jun 2018 – May 2022

Bhubaneswar, India

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, C++, Swift, HTML5, CSS3

Frameworks/Technologies: React, Spring Boot, Struts, Docker, Rest API, TensorFlow, Docker, Kubernetes, GraphQL

Database: SQL, Snowflake, MongoDB, Firebase

AWS: EC2, S3 and Lambda

Version Control: Git, Bitbucket

Concepts/Methodologies: Machine Learning, Microservices, Prompt Engineering, Data Structures, Claude/Cursor (workflow assist), NLP, Agile Methodologies, Distributed Systems

PROFESSIONAL EXPERIENCE

NOVARTIS

Hyderabad, IN

Associate Software Developer

Aug 2022 – Aug 2024

- Built and maintained KPI monitoring applications using **React.js**, **Spring Boot**, and **SQL** for database queries, reducing manual KPI reporting work by **80%** and supporting **4,000+** daily users.
- Improved application performance and reliability through Spring Boot optimizations, SQL query tuning, and efficient data handling, enhancing overall user experience.
- Partnered with cross-functional teams to deliver data visualization solutions leveraging React.js, SQL, and TensorFlow-based models, accelerating decision-making processes and improving reporting **efficiency** by **40%** for stakeholders.
- Engineered an automation pipeline using **Python**, **SQL**, and **GIT** to ingest and normalize unstructured data from heterogeneous sources, apply transformation logic, and programmatically generate a 20-page document, reducing report creation time from **4 days to 1 hour**.

Intern

Jan 2022 – Jun 2022

- Developed and deployed machine learning models in **Python** using **TensorFlow** to process large-scale pharmaceutical datasets, uncover shelf-life patterns, and design data preprocessing and feature engineering pipelines that reduced medicine **degradation** time from **2 years to 1.5 years**, improving inventory management.

HIGHRADIUS TECHNOLOGIES

Hyderabad, IN

SDE Intern

Jun 2021 - Dec 2021

- Built a full-stack executive analytics dashboard with **React** and **SQL/Snowflake** integration, giving C-suite leaders real-time visibility into a \$50M+ monthly receivables pipeline and accelerating data-driven decision-making.
- Modernized data and deployment workflows by refactoring **Snowflake** queries for 30% faster report generation and implementing automated testing within **CI pipelines**, achieving a 99.8% deployment success rate across environments.

PROJECTS

Web Scraper for Trending Tech Stacks | *Python, Spring Boot, React, SQL, Java.*

- Built a website to analyse and summarize trending technologies, using Python for data scraping, Spring Boot for backend services and React for the frontend.

Chrome Extension for Automated Web Vulnerability Scanning | *JavaScript, Python, OWASP ZAP API*

- Developed a Chrome extension for automated web vulnerability scanning and benchmarked its detection accuracy against tools like Burp Suite and OWASP ZAP. Enhanced cyber-resilience by identifying web vulnerabilities.

Gas Fee Mechanism in ResilientDB | *C++, Python, GraphQL, Ethereum Virtual Machine (EVM)*

- Implemented a gas-fee-based resource metering system in ResilientDB by modifying the BFT transaction pipeline, EVM execution layer, and fee-settlement logic to prevent DoS attacks and ensure fair compute/storage usage

LEADERSHIP AND ACHIEVEMENTS

- Awarded the Best Innovation Project at Novartis for engineering an APQR automation pipeline
- Mentored undergraduate students, led coding lab sessions, conducting code reviews, and guiding students through debugging and problem-solving best practices.