

Swetna Annette Tribhuvan

+1 585-710-1759 | swetnaannette.tribhuvan@gmail.com | <https://www.linkedin.com/in/swetna-tribhuvan> | <https://swetna.github.io/SwetnaTribhuvanPortfolio> | <https://github.com/Swetna>

Education

- **Rochester Institute of Technology** August 2021-December 2024
Master's in Computer Science Rochester, NY
- **University of Mumbai** June 2017- June 2021
Bachelor's in Information Technology Mumbai, India

Professional & Internship Experience

- **Information & Technological Services** May 2023 - Decemeber 2024
Software Engineer , Intern Rochester, NY
 - Engineered a **Grafana dashboard** integrated with a **Kotlin backend**, boosting **operational efficiency** by 93% and delivering real-time visualization for 78% of RIT classroom data.
 - Achieved 96% accuracy in **energy calculations** with **PostgreSQL** and **Prometheus**, enhancing **monitoring precision**.
 - Transformed websites using **Laravel**, **Vue.js**, and **Drupal (9.0 and 10.0)**, elevating **user satisfaction** and ensuring **system reliability**.
 - Optimized **JavaScript** and **PHP** code, producing clean, concise, and maintainable solutions that improved functionality and performance by 88%, while also working on the **backend** optimization.
 - Championed team progress and fostered **innovation** by leading **Scrum activities** and facilitating **collaboration**.
- **Covid India National Taskforce** May 2021 - July 2021
Web developer, Intern Mumbai, India
 - Developed a **Django-based web interface**, streamlining data access by 22% during the COVID-19 crisis.
 - Enhanced **MySQL queries**, boosting performance metrics by 11%, and integrated **APIs** to expand functionality by 32%.
 - Propelled team efficiency through implementing **Agile methodologies**, including sprints, stand-ups, and retrospectives.

Projects

- **AI-Based Traffic Flow Optimization Using Cloud Computing and Google Maps API** May 2024 – December 2024
<https://github.com/Swetna/TrafficFlowOptimization>
 - Architecting **AI-driven models** leveraging **Google Maps API** and **cloud computing** to reduce congestion by up to 25% in **SUMO simulations**.
 - Scaling simulation capabilities by 40% through analyzing **large-scale traffic datasets** (over 1 million data points) on **AWS cloud platforms**.
 - Advancing real-time adaptive traffic control by 30% with **cloud-based AI algorithms**.
- **Luxurious Stay: MERN Project with Enhanced UX & Security** July 2023 – August 2023
<https://github.com/Swetna/HotelBookingApp>
 - Designed a **MERN-based hotel booking platform**, boosting **user engagement** by 25% with a revamped interface.
 - Strengthened **platform security**, cut vulnerabilities by 30%, and accelerated response times by 40% through optimized integration.
- **Discerning and Categorizing Poison Ivy: An Elegant Exploration** September 2022 – December 2022
<https://github.com/Swetna/PoisonIvyDetection>
 - Pioneered an **analysis system** using **advanced methods** to identify **poison ivy**, enhancing **outdoor safety initiatives**.
 - Curated a **dataset of 1,000+ images**, achieving 89% accuracy in **plant identification** and refining model performance by 15% with **data augmentation** and **transfer learning**.

For more projects, visit portfolio: <https://swetna.github.io/SwetnaTribhuvanPortfolio/>

Technical Skills

- **Languages:** Java, Python, JavaScript, C++, PHP, C#, XML, C, Matlab, R programming, HTML, CSS
- **Frameworks:** Grafana, Kubernetes, Django, Spring Boot, React, NodeJS, .NET, Drupal, Flask, RESTful API, phpMyAdmin, Kotlin, Laravel, Vue.js, JIRA
- **Cloud/Database:** DBMS, PostgreSQL, MongoDB, SQL, Relational Database, NoSQL, MySQL, Redis, SimpleDB, DynamoDB, Prometheus, Cassandra, SAAS
- **ML & DevOps Tools:** Scikit Learn, TensorFlow, NumPy, Pandas, Matplotlib, Amazon Web Services (AWS), Google Cloud, Docker, Git
- **Concepts/Interests:** Object-Oriented Programming (OOP), Algorithms & Data Structures, Application Development, Debugging, Documentation, Linux, Maven Tools & Gradle Projects, Backend & Frontend Development, Android Development, Agile, Scrum, Troubleshooting, Version Control Systems, Code Management, Code Reviews, Maintainable Code, Unit Testing
- **Soft Skills:** Efficient and Swift in Learning, Communication, Leadership, Efficient Time Organization, Teamwork

Certifications

- **Drupal Essential Training** LinkedIn learning June 2024
- **AWS Certified Cloud Practitioner** - Amazon Web Services April 2024
- **Introduction to Generative AI** - Google Cloud July 2023