Saurabh Srivastava

+1(857) 576-1645
srivastava.sau@northeastern.edu | Linkedin | Github

EDUCATION

Northeastern University **Boston, USA**
Master of Science in Information Systems(3.82/4.0) *December, 2025*
Relevant Coursework: **Network Structures and Cloud Computing**, **Web Design and Development**, **Gen AI**

Manipal Institute of Technology **Manipal, India**
Bachelor of Technology *August, 2018*

TECHNICAL SKILLS

Programming Languages: Java, **Python**, **JavaScript**, HTML, CSS, **ReactJS**, **NodeJS**, **ExpressJS**, **Spring Boot**, **FastAPI**
Cloud & DevOps: AWS (EC2, S3, RDS, Lambda, IAM), **Docker**, **Terraform**, CloudWatch, **CI/CD**, Load Balancing, Auto Scaling, **Apache Kafka**
Databases: MySQL, **PostgreSQL**, Oracle SQL, **MongoDB**, **Elasticsearch**, Kibana, **Redis**
Tools and Frameworks : REST APIs, **Swagger**, **JWT**, OAuth2, **Prometheus**, **n8n**, **GPT API**, **TensorFlow**, Postman

WORK EXPERIENCE

Software Engineer Intern
***Software Velocity Corporation**, Boston, USA* *January 2025 - July 2025*

- Built automated crash dump analysis system processing **10,000+** daily failures using AWS S3, Lambda, and ML; reduced per-incident debugging from hours to minutes, saving **100+ engineering hours/month**
- Implemented robust infrastructure automation with **Terraform Cloud** and **GitHub Actions**, achieving **99.5% deployment success rate** with automated rollbacks across multi-region environments and **blue-green deployment** strategies for zero-downtime releases
- Spearheaded testing standards adoption across engineering team; implemented **pytest** framework achieving **95% code coverage** and drove team-wide adoption, reducing production incidents by **40%** within 6 months
- Built **n8n workflow** alerting system that fetches **MCP server** logs and generates intelligent debugging recommendations, reducing manual inspection time by **80%** through automated log parsing and **pattern recognition algorithms**
- Engineered **global sequence system** to resolve timestamp collisions during high-frequency object creation, ensuring data integrity across daily object initializations in **distributed systems**

Software Engineer
***SIDHA**, India* *October 2021 - July 2023*

- Developed **REST API** facilitating front-end and climate data interaction using **NodeJS**, collaborating with cross-functional teams to ensure seamless integration with comprehensive **API documentation**, authentication middleware, and error handling mechanisms
- Automated climate data extraction using **BeautifulSoup**, processing **50,000+ data points monthly** with **80% accuracy**, eliminating **20 hours of manual work per week** through robust **data validation pipelines** and automated retry mechanisms for failed requests
- Automated data ingestion process using **Pandas** and scheduled monthly data refresh using **CRON**, eliminating manual data entry jobs and improving data reliability with comprehensive **ETL pipelines**, data quality checks, and monitoring dashboards for process tracking
- Designed intuitive dashboards for **50+ internal employees** using **Tableau** to monitor KPIs, leading training sessions and gathering user feedback to improve dashboard usability with **interactive visualizations**, real-time data updates, and performance optimization techniques

ACADEMIC PROJECTS

- **Community Portal for Health Camps**:
  - Developed scalable healthcare platform using **React.js** frontend and **Node.js** backend with **RESTful API** architecture, implementing responsive **UI/UX** features for event management, donation processing, and user authentication in underserved communities
  - Built real-time notification microservice using **MailGun API** integration, **JWT-based** authentication middleware, and **WebSocket** connections for instant push notifications, boosting community engagement by implementing **event-driven architecture**

  Technology: Typescript, Javascript, HTML, CSS, SCSS, ReactJs, MongoDB, NodeJs, ExpressJs, Swagger, REST API, Mail Gun API, JWT Demo
- **Cloud Native Web Application Project**
  - Developed secure, cloud-native user management system using **NodeJS** and **AWS** services with automated **CI/CD** pipelines for zero-downtime deployments
  - Engineered high availability through **load balancing** across 3-5 instances in multiple availability zones, ensuring **99.9% uptime**
  - Achieved efficient resource management and reduced deployment time from hours to minutes through infrastructure automation using **Terraform** and **auto-scaling** policies

  Technologies: AWS, Node.js, Terraform, CI/CD, GitHub Actions, Auto Scaling, Load Balancing, RDS, S3, CloudWatch, SNS, Lambda, Route 53, Packer, KMS, SSL/TLS, Zero-downtime Deployment Github
- **AppleBee - AI-Powered Investment Analysis Platform(Python, Transformer, LLaMA)**:
  - Built custom Transformer from scratch (8-head self-attention, positional encoding, Seq2Seq) trained on 1,153 financial QA pairs achieving 99.69% accuracy; integrated LLaMA 3.1 70B via Groq API for hybrid LLM architecture
  - Deployed production platform with real-time stock analysis, 12 automated Buffett investment criteria, and dual AI chatbot comparing foundation models vs. domain-fine-tuned approaches

  Technology: Python, TensorFlow, Transformer, Multi-Head Attention, LLaMA 3.1, Groq API, Streamlit, yfinance Live