

MANI KANTA LOKESH BURAGADDA

✉ manikantalokeshburagadda@gmail | +1 9402684710

SUMMARY

Software Engineer with 3+ years of experience in **Python, JavaScript, SQL**, and cloud-based software development. Graduated with a **Master's in Computer Engineering** from **Iowa State University**. Proven ability to design, build, and deploy **scalable, secure applications** using modern frameworks and cloud infrastructure. Strong background in **API development**, system design, and backend engineering, with hands-on experience in **DevOps**, CI/CD pipelines, and **microservices architecture**. Adept at writing high-quality, maintainable code, and collaborating in agile teams to deliver impactful software solutions.

EXPERIENCE

Software Engineer & Data Science Co-op

Optimum

May 2024 – March 2025

Ames, USA (Remote)

- Developed scalable backend services using **Python (FastAPI)** and deployed them on **AWS EC2**, improving system uptime by 30%.
- Designed and automated ETL pipelines using **SQL, Python**, and **Azure Data Factory**, handling 1M+ records weekly.
- Built executive dashboards in **Power BI** connected to **Snowflake**, reducing report delivery time by 45%.
- Wrote optimized queries in **PostgreSQL** and integrated them with APIs, reducing dashboard latency by 35%.
- Developed monitoring scripts for pipeline failures and integrated logging with **AWS CloudWatch** and **Grafana**.
- Refactored monolithic code into modular services, improving maintainability and test coverage.
- Enabled secure data access through JWT-authenticated APIs, improving platform security compliance.
- Deployed data ingestion jobs in **Docker** containers and configured CI/CD using **GitHub Actions**.
- Collaborated with cross-functional teams (Product, BI, and DevOps) to align on data model and reporting layers.
- Participated in Agile sprint planning, reviews, retrospectives, and actively contributed to code reviews.

Research Assistant - Software Engineering

Iowa State University, Ames

March 2023 – April 2024

Ames, USA

- Developed AI-based microservices using **Flask, PyTorch**, and hosted on **AWS Lambda + S3**.
- Processed and analyzed 65K+ medical images using **Apache Spark** with storage in **Azure Blob**.
- Created RESTful APIs for inference and data ingestion using **FastAPI**, with secure JWT authentication.
- Integrated **BERT/GPT transformers** for semantic captioning, improving BLEU scores by 18%.
- Deployed models and APIs on **Azure App Services** with Docker containers and CI/CD via GitHub Actions.
- Monitored resource usage and optimized compute clusters for cost-effective GPU processing.
- Connected backend services to **Snowflake** for fast querying and data export.
- Collaborated with faculty and PhD researchers to align research goals with production-level engineering.

Research Assistant – Software Developer

Presidency University

January 2022 – December 2022

Bangalore, India

- Developed backend logic and dashboards using **Flask** with student data stored in **MySQL** and **Azure SQL**.
- Built reporting tools that connected to **PostgreSQL** and delivered data through **Power BI**.
- Deployed micro apps to **Heroku** and migrated workloads to **AWS EC2** for production scaling.
- Built predictive analytics models using logistic regression and stored features in **MongoDB**.
- Automated daily academic reporting with **Power Query + Excel** connected to live database snapshots.
- Collaborated with IT administrators to sync real-time dashboards with on-premise and cloud-hosted data.

Database Software Engineer

Dot Com Generations

Jun 2020 – Jan 2022

Bangalore, India

- Built internal tools and dashboards using **Flask** and **MySQL**, used by over 200 faculty and staff.
- Connected dashboards to **Azure SQL** and **PostgreSQL** for academic performance analytics.
- Developed predictive models for student risk profiling using logistic regression, increasing early interventions by 25%.
- Deployed micro apps to **Heroku** and scaled production workloads to **AWS EC2**.
- Automated Excel reporting using **Power Query** and macro-enabled files integrated with live database snapshots.
- Integrated dashboards with on-prem and cloud-hosted DBs, syncing academic metrics across departments.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL (PostgreSQL, MySQL, SQL Server), JavaScript (Node.js, React), C, HTML5, CSS3
- **Frameworks & Libraries:** FastAPI, Flask, Django, React.js, Node.js, Spring Boot, Bootstrap, Chart.js, jQuery
- **Cloud Platforms:** AWS (EC2, S3, RDS, Redshift, Lambda), Azure (App Services, Blob Storage, Synapse)
- **DevOps & Monitoring:** Docker, GitHub Actions, CI/CD Pipelines, Prometheus, Grafana
- **Database Management:** PostgreSQL, MySQL, SQL Server, MongoDB, SQLite, Snowflake
- **Big Data & Distributed Systems:** Apache Spark, Hadoop, Kafka, Databricks, Airflow, ETL/ELT Pipelines, Pandas, SQLAlchemy
- **Machine Learning & CV:** TensorFlow, PyTorch, Scikit-learn, OpenCV, Transformers (BERT, GPT), CNNs, LSTMs, Model Deployment
- **Tools & Collaboration:** Git, GitHub, Jira, Notion, Postman, VS Code, Agile/Scrum, System Design, Debugging, Technical Documentation