

Jyothsna Kaamala

📞 551 260 5398

✉ jk734@njit.edu

🌐 [linkedin.com/in/jyothsnak117](https://www.linkedin.com/in/jyothsnak117)

🐙 github.com/jyok117

Education

New Jersey Institute of Technology

Sep 2022 - May 2024

Master's in Data Science

Newark, NJ

- **GPA:** 3.65 / 4.0
- **Coursework:** Data Analytics with R Programming, Cloud Computing, Big Data, Machine Learning, Data Management System Design, Data Structures & Algorithms, Deep Learning, Data Visualization, Applied Statistics.

Skills

Programming Languages: Python (Pandas, NumPy, Scikit-Learn, Matplotlib), R, SQL, Java.

Cloud: AWS (EC2, VPC, RDS, S3, Lambda, Elastic Beanstalk)

Database Management: MySQL, PostgreSQL, Oracle, MongoDB

Tools: Jupyter, Tableau, Microsoft Excel

Proficient in Tableau and Power BI for creating interactive dashboards and data-driven reports.

Skilled in data cleaning/preprocessing with Pandas, NumPy, and knowledgeable in ETL and data warehousing.

Strong communication skills for explaining complex data insights to varied audiences.

Experience

Uhnder Inc

May 2020 – Jun 2022

Software Quality Assurance Engineer

Chennai, India

- Collaborated with software experts to validate production software for Uhnder SOC's & Radar Systems, including hardware pipelines. Implemented system-level tests, ensuring functionality and performance of targeted use cases.
- Analyzed system requirements meticulously, leading to the generation of test plans for various use cases. Automated crucial aspects of software development such as building, testing, and deploying using JENKINS/groovy scripts.
- Devised special-purpose hardware pipelines, enhancing system efficiency and throughput. Assured high-quality software production, contributing to optimal operation of Uhnder SOC's and Radar Systems.

Projects

Visualizing Institutional Rankings using Tableau DS 650 Data Visualization

- Developed a comprehensive interactive dashboard with three distinct views to provide insights into university diversity, costs for in-state students, and average SAT scores of admitted students.
- Employed visual encoding and design best practices to create compelling visualizations within each view, including interactive maps, scatter plots, and bar charts, making the data engaging and easy to interpret.
- Built interactive filters, highlighting, and drill-down functionality to enable users to dynamically explore the rankings data and compare metrics across different universities within the dashboard.

Predicting Water Potability Using Machine Learning DS 675 Machine Learning

- Performed exploratory data analysis on a dataset of 3,276 water quality metrics to engineer features for prediction, using Pandas and Matplotlib in Python.
- Optimized a machine learning pipeline for water potability classification that scaled to a 1.2GB dataset, utilizing Scikit-Learn for data preprocessing techniques including custom transformer functions for handling outliers and normalization.
- Trained classification models including SVM, KNN, Logistic Regression and Random Forest on AWS EC2 computing cluster to support rapid iteration. Improved weighted F1 score from 82% to 93% through hyperparameter tuning and cross-validation.

Desks-R-Us: Online Office Furniture Store CS 631 Data Management System Design

- Designed a PostgreSQL database on AWS RDS to support 100k daily product searches and 10k orders per day, normalizing tables for a 25% reduction in data redundancy.
- Built an inventory management API with Node.js and Express serving CRUD operations on the database for internal dashboard. Reduced backend latency by 35% through indexing and query optimization.
- Deployed the Node.js application to AWS Elastic Beanstalk to handle automatic scaling, load balancing and monitoring. Achieved 99.95% service uptime since launch.