

# ALANKRUTHA REDDY PURUMANDLA

(617) 637-5135 • [purumandla.alankrutha@gmail.com](mailto:purumandla.alankrutha@gmail.com) • [linkedin.com/in/alankruthap/](https://www.linkedin.com/in/alankruthap/) • [github.com/Alankrutha18](https://github.com/Alankrutha18)

## PROFESSIONAL SUMMARY

---

Data Analyst with over 2 years of experience in **SQL**, **Python**, and **advanced Excel** for data manipulation and analysis. Proficient in **data cleaning**, **relational databases**, **ETL processes**, and **statistical analysis**. Experienced in creating dynamic visualizations using **Tableau** and **Power BI** for 2 years. Strong understanding of **data modelling**, **trend analysis**, and **automating reports** to deliver actionable insights.

## EDUCATION

---

**Northeastern University**, Boston, MA.

**Sep 2022 – May 2024**

Master of Science in Information Systems

- **Relevant Coursework:** Advanced Database Concepts, Algorithms' Design and Analysis, Statistical Modelling, Intelligent Systems, Data Mining, Software Engineering, Data Visualization, Machine Learning, Data Analytics.

**Vasavi College of Engineering**, Hyderabad, India.

**Aug 2018 – May 2022**

Bachelor of Technology in Electrical and Electronics Engineering

- **Relevant Coursework:** Linear Algebra, Data Structures and Algorithms, Big Data Analytics, Artificial Intelligence.

## PROFESSIONAL EXPERIENCE

---

**Senior Data Science Consultant**, *Hoosier Community Network*

**Jul 2024 – Present**

- Designed and implemented **ETL** pipelines using **Python** and **SQL** to extract, transform, and load data from multiple sources into cloud-based platforms, improving data accessibility and processing efficiency by 30%.
- **Analyzed large datasets** using **SQL** and **Python**, creating interactive visualizations in **Tableau** and **D3.js**.
- Operated **CRM** platforms and integrated **Salesforce** with data analysis workflows to streamline and automate data entry and reporting, improving client satisfaction and operational efficiency by 20%.

**Data Analyst**, *Residential Security Office, Northeastern University, USA*

**Dec 2022 – May 2024**

- Analyzed large datasets containing student access information and login data using **SQL** and **Python**, ensuring accurate monitoring and security of student housing facilities.
- Applied **data cleaning** and **ETL** processes to integrate data from various sources including structured and unstructured datasets, enhancing **data quality** and reducing inconsistencies by **15%**.
- Collaborated with IT and security teams to ensure data accuracy and helped implement data-driven strategies to enhance security protocols using **SQL databases** and **data visualization** tools

**Data Scientist**, *Srikrupa Institute of Pharmaceutical Sciences, India*

**Dec 2021 – Aug 2022**

- Developed machine learning models such as **Logistic Regression**, **Random Forest**, and **SVM** to support pharmaceutical research, improving model accuracy by **15%** through iterative tuning and evaluation.
- Automated data processing pipelines using **Python** and **SQL**, reducing manual data handling by **25%**.
- Applied **Natural Language Processing (NLP)** techniques to analyze unstructured healthcare data, extracting key insights that supported ongoing research projects, improving data analysis turnaround time by **20%**.
- Created dashboards in **Tableau**, improving data visibility and increasing the efficiency of data-driven decision-making.

## PROJECTS

---

**Cardiovascular Diseases Risk Prediction**

- Developed a predictive model for **cardiovascular disease risk** using a dataset sourced from the Republic of Korea, to assist **healthcare providers** in early identification of at-risk individuals.
- Utilized machine learning algorithms including **Logistic Regression**, **Decision Tree**, and **Random Forest**, achieving accuracy improvement of 92%, and an AUC-ROC score of 0.78 through **SMOTE** techniques.

**Transfer Learning for Image Classification**

- Curated a specialized custom image dataset using a **web scraper** built from ground up in python and gathered over 1500+ images of smartphones and remote controls for advanced transfer learning analysis.
- Investigated the efficiency of **transfer learning** by evaluating pre-trained models (**VGG-16**, **ResNet-50**, **MobileNet**, **EfficientNet**) on the custom dataset, achieving a 90% accuracy with VGG-16 using only 500 samples.
- Performed **Data Augmentation** techniques, and comparative analysis between models, demonstrating that transfer learning reduced training times and increased accuracy, with **ResNet-50** achieving 88% accuracy.

## TECHNICAL SKILLS

---

**Programming Languages:** Python, R, SQL, JavaScript, C, C#, Kotlin, NoSQL

**Databases:** MySQL, PostgreSQL, MariaDB, MongoDB, T-SQL, PL/SQL, MongoDB, Google Big Query, Neo4j

**Libraries:** Pandas, Numpy, Scikit-learn, Keras, Pytorch, Tensorflow, Seaborn, Matplotlib, Statsmodels, dplyr, sqldf

**Data Visualization:** PowerBI, Tableau, Google Analytics, Python Dash, Advanced Excel, D3.js, ObservableHQ

**Methodologies and Developer Tools:** Agile, SDLC, Waterfall, Git/GitHub, CI/CD, JIRA, AWS, CRM, Salesforce

**Web Development Technologies:** HTML5, CSS3, Ajax, React.js, Express.js, Node.js, PHP, XML, jQuery, ASP.NET

## ACHIEVEMENTS AND CERTIFICATIONS

---

- Completed "**Accenture – Data Analytics and Visualization Job Simulation**" via Forage, gaining hands-on experience in Data Cleaning, modelling, analysis and presenting insights to stakeholders.
- Certified in "**Career Essentials in Data Analysis**" by **Microsoft and LinkedIn**, with proficiency in data analysis, data extraction, visualization, data-driven decision making, and strategic decision making.