Bharath Raj Pragada

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EDUCATION

Northeastern University — Boston, MA
Candidate for Master of Science in Data Analytics Engineering — *Expected May 2025*
Relevant Coursework: Computation and Visualization for Analytics, Foundations for Data Analytics Engineering, Data Mining in Engineering, Statistical Learning for Engineering

SASTRA University — Thanjavur, India
Bachelor of Technology - Information Technology (Honors) GPA: 3.5/4.0 — *Jul 2022*
Relevant Coursework: Big Data Analytics, Data Warehousing and Data Mining, Database Management System, Statistical Foundations for Computer Science, Machine Learning Techniques, Design and Analysis of Algorithms

SKILLS

Languages: Python(Pandas, NumPy, Matplotlib, Tensorflow, Keras API), SQL, R, C, C++, Java, Scala, HTML, CSS
Frameworks: FAST API, Flask, React JS, Java Script (amCharts), JUnit, Pytest, Spring Boot, Django, Spark, Scala
Developer Tools & Databases: Git, Swagger, VS Code, Heroku, PyCharm, Figma **,** MongoDB, MySQL Workbench
Software Tools: Tableau, Flourish, Datawrapper, Microsoft Power BI, Figma, Postman, MS Office(Excel, Powerpoint)

EXPERIENCE

Northeastern University — Boston, MA
Research Assistant — *Sep 2023 – Present*
- Collaborating on material science research under Professor **Dr. Peter Schindler**, to implement **OPTIMADE API** standards
- Executed data loading, cleaning, structuring, and maintenance tasks using **MongoDB**, to ensure secure data storage
- Creating an optimized API utilizing the **FastAPI** framework in **Python**, enhancing data retrieval and constraints handling

Alfahive — Bangalore, Karnataka
Product Engineer — *Aug 2022 – Jul 2023*
- Developed master data and APIs required for core risk quantification engine using **Python** in the **Flask** framework
- Conducted data aggregations using **MongoDB** into the data pipeline to enhance efficiency and drive insightful analytics
- Improved test perfomance statistics by **50%** using **Testsigma** and verified the functionality of pipelines for deployments

Alfahive — Bangalore, Karnataka
Intern - Product Engineering - Certificate — *Feb 2022 – Jul 2022*
- Designed Recruitment Portal using **Spring Boot** and **React JS**, enabling job-seekers to seamlessly navigate and apply
- Delivered a cutting-edge product with dashboards for data analytics using **amCharts** and Visualization with a **team of 3**
- Enhanced user journey, resulting in a **50%** increase in customer value and a **35%** rise in **JUnit** test coverage

Internship Studio — Pune, Maharastra
Intern - Artificial Intelligence(AI) - Certificate — *Jul 2021 – Aug 2021*
- Implemented a language translation model using **Seq2Seq** architecture, for converting German to English and vice versa
- Utilized **Keras Tokenizer** to vectorize text data, facilitating effective sequence processing for machine translation
- Streamlined model using **LSTM** layers, trained for **30** epochs with RMS Prop Optimizer, achieving optimal performance

ACADEMIC PROJECTS

Global Exploration of Natural Disasters: Causes, Adverse Effects, and Mitigation Plans - *Google Site* *Sep 2023 – Nov 2023*
- Spearheaded a collaborative project to visualize global natural disasters to communicate complex information
- Applied **Datawrapper** and **Flourish**, to create dynamic and engaging visuals, for effective storytelling via **Google Site**

Crime Data Analysis and Visualization - *GitHub* *Sep 2023 – Nov 2023*
- Conducted comprehensive exploratory data analysis (**EDA**) and used **Prophet** time series to predict future crime patterns
- Reported on the effects of major events during the dataset period, providing critical insights into shifts in crime rates

Deep Learning Model for diagnosing the chest X-ray - *GitHub* *Sep 2021 – Dec 2021*
- Trained a deep learning model and designed a **GUI** for showcasing the predicted disease in chest X-ray using **Python**
- Attained accuracy of **73%** with **DenseNet** (Densely Connected Convolutional Networks) and selected to categorize data

Classification and Segmentation of Brain Tumor - *GitHub* *Aug 2021 – Dec 2021*
- Implemented a Layered architecture of **ResNet** model to classify the type of brain tumor, achieving an accuracy of **99.2%**
- Constructed a **U-net** segmentation model, which locates the tumor through MRI images,allowing quick diagnosis