

Jayasurya Bhaskar

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University of Central Florida

Master of Science in Computer Science (GPA: 3.7/4.0)

Coimbatore Institute of Technology

Bachelor's in engineering in Computer Science and Engineering

Orlando, FL

2022 – 2024

India

2018 – 2022

Experience

Castillo Engineering: Engineering Data Intern

July 2024 – Present

- Cleaned and preprocessed solar installation data from 2005, **spanning over 18 years** using **excel** and **power query**.
- Decomposed **54GB** of transactional data and designed **normalized 3NF** compliant **relational tables**, reducing **13Gb** storage.
- Worked cross functionally to combine multiple data sources: SQL database, excel sheets and csv files and designed **STAR schema**-based data model in PowerBI.
- Leveraged **ARIMA models** and **Plotly** to visualize seasonal trends in data over time, integrating insights into PowerBI visuals.
- Crafted custom **SQL queries** and **python scripts** to extract ERP data to excel and **automate** weekly inventory report generation.

Genpact: Data scientist (co-op)

February 2022 – August 2022

- Collaborated with the research and development team of 10 to build a dental disease detection model using **TensorFlow**.
- Assisted in data preprocessing, cleaning, and feature engineering tasks of **150GB** dental image dataset.
- Handled multiple **data augmentation** techniques using **keras** and **OpenCV**, improving model accuracy by **28%**
- Developed a dense **U-Net image segmentation** model to accurately detect **dental caries** in X-ray images, utilizing convolution, pooling, and up sampling layers with over **80% bounding accuracy**
- Worked synergistically with cross functional teams to deliver well-structured demonstrations of the research model to stakeholders.

Speed Spark: Data Science Intern

July 2021 – January 2022

- Built an employee performance review system for over **200 employees** using a sentiment analysis model using **topic modelling** and **text classification**.
- Constructed an end-to-end web-based interface for the review system using **node.js**, **JavaScript** and **MongoDB**.
- Handled **C++ based API** scripts for authentication ensuring **role-based access control**.

Technical Skills

Languages: Python (Pandas, NumPy, scikit learn), C/C++, JavaScript, HTML/CSS, Java, SQL, XML

Frameworks: QuickBase, PyTorch, TensorFlow, Keras, Git, google analytics, Unity3D, Docker, Gist

Specializations: Machine learning, Computer vision, Data Analysis, Natural Language Processing, Statistical Analysis

Data Analysis and Visualization: Tableau, Power BI, Matplotlib, Seaborn, Excel

Data storage and manipulation: Databricks, AWS (Amazon S3), MySQL, MongoDB, Apache spark, ETS

Projects

Airbnb Berlin rental housing analysis | [Github](#)

- Executed exploratory visual analysis and developed interactive **dashboards** using **tableau** for Airbnb open-source data, incorporating **regression and time series analysis**, achieving a **forecast accuracy of 93.1%** and enabling strategic decision-making.

Warning system for automobile drivers | [Github](#)

- **Lead a team** of four to develop a **lane detection system** using **TensorFlow**, **Java**, **Android Studio**, **OpenCV** and **machine learning**. Created an android mobile based application that was selected for **SIH hackathon 2020**.

Political sentiment analysis in social media | [Github](#)

- Built a Sentiment Analysis system using Django, React, PostgreSQL, deep learning and Keras with an accuracy of 92%.
- Designed and implemented a python script for **scraping twitter** dataset using the Twitter **API**. Created a user-friendly interface to query the model using **JavaScript** and **Django** and deployed as a **web-based application**.