

# Pruthvi Shyam Billa

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## SUMMARY

**Six years** of professional experience spanning data science, analytics, and software engineering.  
Developed and implemented 30+ live projects and ad-hoc requests to solve complex business problems.

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## PROJECT EXPERIENCE

- Trained ML models and developed a web application ([Link](#)) to predict high booking rate of Airbnb properties.
  - Created Tableau dashboards for Airbnb pricing, identifying insights: US average price consistently greater than \$100 with majority 58.61% customers renting entire room property type.
  - Implemented an XGBoost classifier for credit card fraud detection, achieving 97% precision, and 91% recall on the test set, with optimized hyperparameters.
  - Enhanced UMD MS Program Office's attendance database using SQL Server reducing query response time by 40%.
  - Developed a BERT language model to predict the topic of user posts on Stack Exchange sites with an impressive test accuracy of 96.9%.
  - Developed a CNN model for the MNIST handwritten dataset to classify images using TensorFlow with a validation accuracy of 98.85%.
  - Utilized a HuggingFace transformers model to generate summaries of 10 huge Daily Mail reviews with an average BERT 'F1' scores of 0.81.
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## WORK EXPERIENCE

### Pixxel

El Segundo, California

#### Analytics RnD Intern

June 2023 – August 2023

- Demonstrated exceptional leadership by implementing in-house code development and project management practices for satellite imagery, achieving 30% increase in team productivity, and 100% client satisfaction.
- Developed code and implemented Vertex Component Analysis algorithm using Python to remove noise artifacts and enhance image features, improving overall image classification accuracy by 6%.

### Tata Consultancy Services

Mumbai, India

#### Analyst

July 2021 – July 2022

- Remodeled processing of high-risk prepaid cards with Python and SQL, ensuring a 10% decrease in bad debts.
- Optimized package deployment using VBS scripts, resulted in 25% faster execution time saving \$50,000 annually.

### Tata Consultancy Services

Mumbai, India

#### Software Engineer

September 2016 – June 2021

- Developed three Python modules to efficiently store the gift card fulfillment timing of prepay reservations in Couchbase for Amazon Prime users, leading to a 12% increase in cross-platform business transactions.
  - Led group of 6, collaborated with e-commerce, mobile teams on MS Teams & Jira, reducing 10% delivery time.
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## SKILLS

**Data Science | Data Analytics | Data Visualizations | Image Analytics | Business Analytics | Statistical Analysis**

**Machine Learning:** Regression, Trees, Random Forests, Bagging, Boosting, SVM, Neural networks, CNN.

**Software Engineering:** Data Structures & Algorithms, Python, R, C++, C, Node.js, Java, Flask, SQL, MongoDB.

**Python Programming:** Numpy, Pandas, Matplotlib, OpenCV, TensorFlow, Keras, PyTorch, PySpark, Scikit-Learn, NLTK

**Big Data:** HDFS, MapReduce, Pig, Hive, Sqoop, Spark.

**Microsoft:** MS Teams, MS Excel, Power BI, MS SQL server, MS Word, PowerPoint, SharePoint.

**Tools:** AWS, Google Analytics, Google Colab, Tableau, Git, Jira, Docker, Jenkins, Postman, Agile Methodology.

**Interpersonal:** Communication, Presentations, Teamwork, Leadership, Problem-Solving, Critical Thinking.

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## EDUCATION

### University of Maryland

College Park, MD, USA

Master of Science, Information Systems, GPA: 3.9

December 2023

- Graduate Assistant: UME TechExtension

### Jawaharlal Nehru Technological University

Hyderabad, India

Bachelor of Technology, Electronics and Communication Engineering, GPA: 3.53

May 2016

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## CERTIFICATIONS

- AWS Certified Cloud Practitioner | Recipient of TCS Service and Commitment Award | Diploma in Carnatic Music