

EDUCATION

B.Tech. (Electronics & Instrumentation) – BITS Pilani, Hyderabad (2015–2019)

GPA: 7.15/10

Key Coursework: Data Structures, Neural Networks, Discrete Math, Digital Image Processing

Self-Taught: DBMS, Number Theory (Project Euler)

Certifications: Advanced NLP, CNNs, RNNs, Bayesian ML, A/B Testing, Recommender Systems, Computer Vision

TECHNICAL PROFICIENCY

Programming Languages: Python, C++, JavaScript, SQL

Databases: PostgreSQL, MongoDB, Firestore

Machine Learning: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy

Tools & Frameworks: Flask, Django, PySpark, Jupyter Notebook, Docker, Terraform, AWS EC2, S3

Parallel Processing: Pandarallel, Mpire, Multiprocessing

WORK EXPERIENCE

Wipro Private Limited (Client: Ericsson) – Senior Software Engineer (Python Developer)

Jan 2025 - Current

- Built ChatGPT-style chat interface with CRUD features in Dash + SQLite.
- Demo presented to **1000+ Ericsson IQ employees**.
- Features: Pagination, Dark/Light Theme Toggle, Export to CSV, Zoomable Graphs (Plotly), Tabular formatting

Wipro Private Limited (Client: Mercedes-Benz) – Senior Software Engineer (Python Developer)

May 2024 - Jan 2025

- Automated C++ code generation for Mercedes-Benz products, reducing manual effort using Python multiprocessing.
- Developed a Flask app with Docker and Socket.IO for live terminal visualization.

Standard Chartered Bank GBS – Senior Data Analyst (Data Analyst II), Associate Projects (Data Science)

Aug 2020 - Jan 2024

- **QA Generation Pipeline:** Reduced processing time by implementing parallel processing on large documents.
- **Synthetic Data Generation:** Improved dataset creation efficiency from 4 hours to 1 hour per document (256 logo combinations).
- **Image Duplicate Detection:** Improved accuracy by 80%+ for barcode, watermark, and seal detection.
- **ML Model Performance:** Achieved 85% accuracy using Faster R-CNN for object detection.
- **McNemar Test Analysis:** Optimized classifier selection using structured data comparison.
- **NER Model Explainability:** Attained 80% word-level accuracy in Named Entity Recognition analysis.

EXPERIENCE WITH PYSPARK

- **Pyspark Performance Optimization (Zycus Assignment):** Improved data processing speed by 91% using parallel computing for a text classification pipeline.

PROJECTS WITH MEASURABLE IMPACT

- **Text Robustness App:** Built a Flask-based NLP model attack simulation system.
- **Avengers Face Detector:** Deployed on Hugging Face, achieving 95% accuracy with 10ms inference time.
- **Python Code Generator (LLM):** Reduced execution time by optimizing prompt length.
- **Web Scraping for BestBuy:** Extracted and analyzed review data using NLP and sentiment analysis.

COMPETITIVE PROGRAMMING & ACHIEVEMENTS

- **Atcoder:** Red coder
- **CodeChef:** Peak 3-star rating
- **AI/ML Hackathons:**  Gold award from Standard Chartered Bank for ML innovations

INTERNSHIP EXPERIENCE

Small Startup Internship (July 2018 - Dec 2018)

- Built an automated monitoring system to transfer projects over time using Firestore DB.
- Scraped kirana datasets from Justdial to increase product scalability by 150x.
- Automated web authentication for dynamically loaded websites like Facebook and Justdial.
- Extracted and simulated user interactions to optimize web scraping for missing product info.
- Developed multithreading-based Tkinter app for barcode production with memoization.

NOTABLE OPEN-SOURCE PROJECTS AT GITHUB

- **Enterprise Level Scalable Web Apps and Components** (LocTube, CubeClicker, JsonDataViewer, JsonBubbleChartViewer, JsonSplineChartViewer integrated into Material UI - <https://prakhr.github.io/Portfolio-Site/#enterpriseWebApps>)
- **Automate Scalable Unsupervised Dataset Generation**
- **Automate Supervised Dataset Generation**
- **Automate Unsupervised Dataset Generation**