Tanmay Karra

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https://tanmaykarra.github.io/resume/

Summary

Software and data enthusiast with hands-on experience in Python, SQL, Django, and automation. Built real-time analytics systems, data pipelines, and AI simulations during internships at BEL, BMRCL, and Prodigy Infotech. Proficient in designing scalable applications, visualizing data, and applying ML models to solve real-world problems. Currently seeking opportunities in software development and data engineering.

Education

Christ (Deemed to be University) Bangalore 2022-2025

Bachelor of Computer Applications

Relevant coursework: Data Structures, Algorithms, Database Management Systems, Machine Learning, Web Development, Business Intelligence, Cloud Computing.

Mata Jai Kaur Public School, Delhi

12th Grade Percentage: 91% 2022

Served as a student council member, IT Head, Core Team member of many inter/outer school competitions.

Skills

Technical - Python, Django, SQL, Web Scraping (Selenium, BeautifulSoup), Power BI, MySQL, Pandas, Matplotlib, Data Collection, Data Interpretation, Research, PowerPoint, Excel, Scikit-learn, TensorFlow (Basic), Reinforcement Learning, Git, Jupyter Notebook, AWS (Basic), Canva.

Soft - Leadership, Attention to Detail, Communication, Problem-Solving, Teamwork, Adaptability, Emotional Intelligence, Time Management, Critical Thinking, Decision-Making.

Work Experience

Bangalore Metro Rail Corporation Limited (BMRCL), Bangalore December 2024- Present

Software Intern

A government-owned metro rail service provider focused on urban transportation and infrastructure development.

- Developing RailMetrics, a comparative analytics dashboard for metro ridership.
- Automated metro data scraping across several city lines using Selenium and BeautifulSoup, reducing manual data updates by 90%.
- Managing structured data storage with MySQL and designing interactive visualizations using Power BI.

Bharat Electronics Limited (BEL), Bengaluru July 2024- October 2024

Software Intern

A leading defense and aerospace electronics company under the Ministry of Defence, Government of India.

- Worked on the "Simulation of Flight Control Using Artificial Intelligence" project.
- Focused on integrating AI into flight control systems to improve simulation accuracy and performance.
- Improved model navigation accuracy by 10% during simulation testing through parameter tuning.

Prodigy Infotech June 2024- July 2024

Machine Learning Intern

A technology company specializing in AI, machine learning, and data analytics solutions.

- Processed large datasets and created data visualizations using Python.
- Developed a gesture recognition model with 85% accuracy using a dataset of over 1,000 hand gestures.

Varlyq Technologies May 2024- June 2024

Web Development Intern

A software development company providing web and mobile solutions for businesses.

- Built a CRM system using Django, implementing user authentication and a superuser dashboard.
- Developed login/logout functionality and integrated database management for system operations.

Projects

RailMetrics

A metro ridership analytics project that collects, stores, and visualizes data to provide comparative insights.

- Automated data collection using Selenium and BeautifulSoup for real-time metro data.
- Designed an interactive dashboard in Power BI for trend analysis and decision-making.
- Built an end-to-end data pipeline for urban mobility analysis.

ShopSustain

A B2C e-commerce platform dedicated to sustainable living, enabling users to buy and sell eco-friendly products.

- Developed advanced search and filtering options for seamless product discovery.
- Created an admin dashboard for sellers to manage products, orders, and view analytics.
- Simulated 20+ product listings to validate dashboard performance.

NavigatorRL

A reinforcement learning-based simulation where an AI navigates a plane through waypoints to a target destination.

- Developed a custom OpenAI Gym environment for training RL models.
- Implemented dynamic path visualization to track real-time plane movement.
- Optimized the AI agent's decision-making strategies for navigation.

Fruit Segregation

A machine learning model trained to classify banana ripeness based on image recognition.

- Trained a CNN-based model to detect ripe and unripe bananas from images.
- Achieved 90% accuracy in identifying ripe vs unripe bananas.
- Applied data preprocessing to enhance model performance.

Courses and Certifications

Intro to Snowflake – SnowFlake	April 2025
Crash course on python – Google	March 2025
E-Business – IIT Kharagpur	April 2024
Web Development with Python – YouVah	April 2024
Machine Learning for all – University of London	May 2023
AI Challenge – Times of India (3rd place)	Feb 2022