

PREETHAM DANDU

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Education

Stony Brook University, Stony Brook, New York

January 2024 - Present

Master of Science in Computer Science

GPA: 4.0

- Coursework: Analysis of Algorithms, Operating Systems, Network Security, Visualization, Machine Learning, Data Science Fundamentals, Simulation and Modeling

Vellore Institute of Technology, Amaravati, India

June 2019 - May 2023

Bachelor of Technology in Computer Science and Engineering (Spec. in Networking and Security)

Technical Skills

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

Developer Tools/Platforms: Git, Jenkins, CI/CD Tools, Linux, Postman, AWS (EC2, RDS), Docker, Kubernetes

Frameworks and Libraries: AWS, Apache, Node.js, Spring Boot, d3.js, Flask, Django, React.js, PyTorch

Design Oriented Topics: Distributed Systems, System Design Patterns, Algorithm Optimization, Analysis of Algorithms (Dr. Rezaul), Hybrid Systems, Network Security, Operating Systems

Work Experience

Research Assistant, Knowledge Systems Lab [Link](#)

June 2024 – May 2025

Stony Brook University - Advisor : Dr.Paul Foder

Stony Brook, NY

- Designed and deployed real-time ETL pipelines for fetal heart rate data using Python and PostgreSQL, enabling structured, HIPAA-compliant data storage and live clinical data access.
- Developed anonymization scripts and collaborated with clinical teams to ensure privacy, enhance data quality, and support high-fidelity physiological signal analysis.
- **TechStack:** Python, PostgreSQL, SQL, ETL Pipelines, AWS, GitHub, Data Anonymization, HIPAA

HCLTech

August 2023 – December 2023

Software Engineer - Full Time

Chennai, India

- Acquired and applied advanced data analysis, machine learning, and statistical modeling using Python and R.
- Executed end-to-end data science projects, including data cleaning, feature engineering, and predictive modeling in Python/R to deliver business insights.
- Demonstrated proficiency in SQL, Hadoop, and ML frameworks like scikit-learn and TensorFlow.
- **Tech Stack:** Python, R, SQL, Hadoop, scikit-learn, TensorFlow

Oriana Information Technologies LLP

January 2023 – May 2023

Full Stack Developer Intern

Chennai, India

- Developed an e-commerce web app, FashionBOLTz, with secure payments using AES encryption and efficient SQL access via JDBC.
- Built five responsive React.js pages to improve navigation speed by 60%, and managed SQL databases using HeidiSQL.
- **TechStack:** Java, JSP, React.js, HTML, CSS, JavaScript, MySQL, JDBC, AES, HeidiSQL

Projects

Photonimbus [Link](#)

October 2024 – February 2025

- Developed a cloud-native photo-sharing app with Django REST APIs, JWT authentication, and Angular 8 frontend, integrating Cloud SQL and Cloud Storage for scalable data and media management.
- Containerized backend with Docker and deployed on Google Cloud Run using CI/CD pipelines, improving API performance by 30% with indexed queries and connection pooling.
- **TechStack:** Django, Angular 8, PostgreSQL, Google Cloud (Cloud Run, Cloud SQL, Cloud Storage), Docker, JWT, REST API

COVID Tracking Dashboard [Link](#)

March 2024 – June 2024

- Built an interactive dashboard to visualize COVID-19 spread using Angular 9 and Google Maps API, supported by Spring Boot APIs and spatial queries with PostGIS.
- Optimized data access via materialized views and deployed containerized services on GCP; ensured <100ms filter latency and 99% uptime for real-time analytics.
- **TechStack:** Spring Boot, Angular 9, PostgreSQL, PostGIS, Google Maps API, Docker, REST API

Plant Disease Detection and Farmer Assistance [Link](#)

April 2022 – June 2022

- Built a Django-based deep learning app for plant disease detection with 83% accuracy, aiding farmers in diagnosis.
- Designed a distributed system for scalable image processing and concurrent requests; integrated ML-based weather prediction.
- **TechStack:** Django, Deep Learning, Machine Learning, HTML, CSS, JavaScript, Distributed Systems