

Aniruddha Thaksen Parvat

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EDUCATION

Master of Science in Computer Science and Engineering

Buffalo, NY | Aug 2021 - Present

University at Buffalo, The State University of New York

Coursework: Operating Systems; Algorithms Analysis and Design; Introduction to Machine Learning; Distributed Systems; Database Systems; Processing Strings and Sequences; Information Retrieval

Bachelor of Engineering (Computer)

Pune, India | July 2013 - July 2017

Savitribai Phule Pune University

Coursework: Engineering Mathematics, Data Structure and Problem Solving; Microprocessor Architecture; Theory of Computation; Operating Systems; Programming labs(8); Computer Networks; Compiler Design

WORK EXPERIENCE

MINDTREE | Senior Engineer

Bengaluru, India | 22 July 2017 – 23 July 2021

- Developed REST APIs and event driven systems using Java, Cassandra, ActiveMQ and Hazelcast.
- Worked on all aspects of performance improvement from coding and deployment to load testing and presenting results. Improved performance by 30% by analyzing production data, implementing efficient caching and tuning Cassandra. Improved further 30% by code optimization.
- Developed internal developer tools for automated local testing. The testcases can be quickly defined in txt files and shared. It helped during a rewrite to ensure faster development by catching defects early.
- Created dashboard using Prometheus, Streamlit and custom tools to monitor system. Same tools were then used to monitor production.
- Successfully designed, tested and executed historical data handling strategy during cloud migration.
- Implemented contextual logging for better traceability through logs.

SKILLS

Languages: Java, Python, JavaScript

Frameworks and libraries : Spring ecosystem, Hibernate, Pandas, Plotly, Streamlit, Keras, SciPy

Databases : Apache Cassandra, MySQL, Hazelcast

Technology: Git, Docker, Apache Kafka, Apache ActiveMQ, Oracle WebLogic, AWS, Linux

PROJECTS

MESSAGE BROKER

Java, Spring boot, MySQL , Apache Tomcat

ToyMB, a message broker that works using http. Supports persistent messages with subscriber groups and topic partitions. Supports pull and push interface. Has straightforward enrichment api to enrich messages in the broker. Java Spring boot driver available with annotation and template style interface.

VIZIERDB EDITOR SUPPORT

Java, Python, MyPy

VizierDB is a kernel-free notebook. Devised a way to switch between local editor and web UI seamlessly. Created a local agent that does code sync. Created a stub server that collects local stubs on the VizierDB server, this helps lint the code on the users local machine even if a package is not installed on their local machine.

FLIGHT DELAY PREDICTION

Python, Pandas, Keras, NumPy, SciPy, BeautifulSoup

Domestic flight performance data from U.S. Department of Transportation's (DOT) Bureau of Transportation Statistics combined with weather scraped from 'www.wunderground.com' and airport data scraped from Wikipedia. Date features like holiday, weekends, day of the week were extracted from flight date. Last 30 days of data was considered as test data. Final Random Forest model had 90% accuracy on the test data.

NETWORK INTRUSION DETECTION SYSTEM

Python, Pandas, Keras, NumPy, SciPy

Final year bachelors project. Network intrusion detection system using ensemble of binary deep learning classifiers. Two staged NIDS evaluated. 81.37% accuracy on test set. Published 2 papers as a result of this project.