

Nikhil Patil

Software Engineer

EXPERIENCE

Software Engineer I / II, o9 Solutions

📍 Austin, Texas
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Dec 2020 - May 2023 // Austin, TX

- Collaborated and led a joint effort with Google's Demand Forecast Vertex AI dev team to implement an AutoML enhancement on o9's platform using BigQuery, PySpark, Python, and REST APIs for big data processing and streamline supply-chain forecasting.
- Unified UX to create ETL data flows and pipelines on the o9 platform using Airflow as a backend orchestrator. Solely led the dev efforts on Airflow to generate complex, dynamic, cloud-agnostic workflows from a JSON config. Built custom operators, algorithms, and functions to store and retrieve data in dynamically provisioned Docker containers and cloud storage.
- Responsible for publishing, managing, and maintaining o9 VertexAI AutoML and Airflow backend services and critical components.
- Developed and designed REST API on Azure Functions to redirect the flow of streaming data to collect and store market intelligence data using Azure Event Hub, Synapse, and Data Lake.
- Extended JupyterLab with custom extensions using JavaScript and TypeScript to enable o9 customers and devs to utilize the Jupyter Notebook workspace to write and debug code.

Software Engineer Intern, o9 Solutions

Jan 2019 - Dec 2020 // Dallas, TX

- Designed and trained different machine algorithms (Lasso, KNN, Decision Tree, Random Forest, Neural Network, Gradient Descent) to predict Covid-19 cases at the county level in the United States. Collected, cleaned, and analyzed open-source and privately web-scraped data from John Hopkins, NYTimes, US Census, and others.
- Implemented a storage utility in Python for seamless flow of data between different storages like AWS S3, Hadoop Distributed File System, Azure Data Lake, and Google Cloud Storage.
- Enhanced a Python MongoDB logging library to enable custom messages and buffered logging.
- Gained experience in writing and executing unit and functional test cases.

Software Engineer Intern, Amstech

Jun 2018 - Aug 2018 // Indore, MP, India

- Planned and developed a remote management service for restaurant managers to track inventory, show menu, enable reservations, and support other functionality for local businesses using Java, Java Servlets, MySQL, and SSMS.

EDUCATION

Master of Science in Computer Science, University of Texas at Dallas

Aug 2023 - Dec 2024 // Richardson, TX

- **Major GPA / GPA:** Unknown until end of the first semester
- **Clubs:** [Artificial Intelligence Society](#) (AIS)
- **Relevant Courses:** Machine Learning, Algorithm Design and Analysis, Statistics for Data Science

Bachelor of Science in Computer Science, University of Texas at Dallas

Aug 2017 - Dec 2020 // Richardson, TX

- **Major GPA / GPA:** 3.94 / 3.88
- **Research:** [CEFEs: A CNN Explainable Framework for ECG Signals](#), with RNN & LSTM Models
- **Clubs:** [Dallas Formula Racing](#) (FSAE) and [RoboSub](#) (RoboSub Autonomous Underwater Vehicle)

AWARDS

Magna Cum Laude Honors
- Top 10% of the graduating class of UTD Fall 2020

Dean's List - Top 10% GPA among all undergraduates in Engineering college. Maintained from Jan 2019 to graduation in Dec 2020

Internship MVP - Voted the most valuable and highest potential intern at Amstech

SKILLS

Programming Languages

Python - 5+ years

Java / C / C++ - 3+ years

Cloud

Amazon Web Services (S3), Google Cloud Project (GCS), Microsoft Azure (ADLS), BigQuery, Azure Synapse

Concepts & Topics

Machine Learning (ML), Deep Learning (DL), Artificial Intelligence (AI), Neural Network (NN), Data Science, Agile

Soft Skills

Growth Mindset, Innovation, Leadership, Stress and Time Management

Tools & Platforms

Git, Linux, Docker, OpenCV, SQL, PySpark, MongoDB, Jupyter, Anaconda, Airflow, Flask

LANGUAGES

English - Native / Bilingual

Hindi - Native / Bilingual