Nalin Mehra

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Education

University of Florida (UF) - Gainesville, FL **Expected May 2023**
B.S. in Computer Science **GPA:** 3.89/4.00

- ***Honors:*** Dean's List, Benaquisto Scholarship (full-ride), National Merit Scholar
- ***Relevant Coursework:*** OS, Data Structures, Databases, Natural Language Processing, Applied ML
- ***Involvement:*** Google Developer Student Club, Competitive Programming, ACM, Open Source Club

Skills

Languages: Python, C++, PHP (Hack), Go, JavaScript/TypeScript, HTML5, CSS3, Java, SQL
Technologies: React, GraphQL, Flask, Git, Apache Thrift, Hive, Spark, Elasticsearch, AWS, Linux, Docker

Experience

Meta (formerly Facebook) Seattle, WA
Software Engineering Intern - AI Infrastructure (Privacy Enforcement) May 2022 – August 2022

- Launched internal tool with **React/Hack** for adding privacy policy annotations on **Feature Store** feature groups to meet privacy compliance. Gained **90% improvement** from existing process.
- Designed schema for **XDB (MySQL)** backed annotation entities accessed by new **GraphQL** endpoint.
- Architected **Python API** to ingest feature groups and automatically infer and annotate privacy policy by analyzing feature lineage data flow from various AI Metadata data sources.
- Expanded Feature Store's **C++** computation engine pipeline to ensure privacy policy during indexing.
- Composed project design documentation and wrote tests to achieve **90%+ test coverage**.

American Express Phoenix, AZ
Software Engineering Intern - Enterprise Data Architecture and Artificial Intelligence June 2021 – August 2021

- Trained and deployed **Random Forest** (RF) model for the **Feature Store** team to gain additional data insights for internal auto-feature engineering tool and improve AmEx data science pipeline.
- Populated and queried **Elasticsearch** database to store and retrieve data using **Flask** REST API.
- Achieved **93% model accuracy** by tuning RF hyper-parameters using cross-validation techniques.
- Created fullstack portal using **React/Redux** to provide feedback for reinforcement learning.
- Performed unit, functional, and integration testing for backend API using **Postman** and **Python**.

Raytheon Technologies Dallas, TX
Computer Engineering Intern - Radar Processing and Testing June 2020 – August 2020

- Developed firmware for and tested radar processing cards used in F-15 fighter jet radar system using **Lua**.
- Reduced test station operation time by **10%** for **Circuit Card Assembly** (CCA) by sourcing **FPGA** card control data with **TCL** scripting to automate clock frequency verification test.
- Programmed and verified functionality for the **Optical Controller Module** (OCM) using **C#** .
- Engineered **.NET GUI** to interact with and display information from the OCM.

Projects

UF Dream Team Engineering *Flutter/Dart*

- Created Flutter mobile app to allow patients to share vital signs data with their doctor in collaboration with UF Shands Hospital. Adhered to HIPAA compliance standards.
- Redesigned input screen for patients to record vitals and measurements.
- Migrated codebase from Flutter 1.0 to Flutter 2.0, fixing null safety and type check issues.

Sentimental Critics - Natural Language Processing Project *Python, C++*

- Established a new rating system for local restaurants using sentiment analysis in Python.
- Formed dataset by scraping google reviews using Pandas, Numpy, Selenium, and BeautifulSoup4.
- Trained and tested machine learning model (Naive Bayes) to calculate a rating from written reviews.

Newtts - Notes Scanner with Audio Review *Flutter/Dart*

- Built iOS/Android app to take pictures and read handwritten notes using Google ML Kit.
- Implemented file system solution, various import formats, and notes viewer features.
- Developed notes audio playback feature for improved review and user convenience.