Nathan Hardham

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Professional Experience

Software Engineering Intern — Bright Healthcare   **5/2022-8/2022**
- Accelerated the automation of Big Data ETL processes across several data feed partners using Scala and Spark
- Optimized CI/CD pipelines by implementing Azure Log Analytics alerts with KQL, Scala, and Spark to monitor job failures
- Facilitated the cloud migration from the Databricks space to Dagster for superior data lake navigation
- Collaborated on a Scrum team using the JIRA platform

Software Team Lead — Texas Engineering World Health   **1/2020-5/2022**
- Awarded 3rd place at the international Engineering World Health Competition
- Designed software components for an electrode headset to predict seizures and warn patients prior to seizure onset
- Manipulated seizure patient data with Python to fit the DCAE and LSTM neural networks

Manager of Budget and Schedule — Projects with Underserved Communities   **8/2020-5/2022**
- Collaborated with a team to create Revit and CAD renderings for a multipurpose community center in Siripudi, India
- Negotiated with contractors and fundraised over $30,000 to cover all expenses with implementation by contractor in 2022
- Navigated global scheduling conflicts, safety hazards in industry, and unforeseen complications associated with COVID-19

Organic Chemistry Lab Assistant — UT College of Natural Science   **6/2021-Present**
- Prepare reagents, supervise/perform chemical reactions, and repair/replace broken equipment for organic chemistry labs

Projects

Frontend Engineer — Classless Action   **1/2023-5/2023**
- Developed a dynamic React-Flask website to analyze SPX500 companies' stock trends following class action lawsuits
- Designed the frontend using Node.js and Bootstrap, implementing features such as search, sort, and filter
- Built a REST API with SPX500 stock and legal history pulled from relevant APIs: designed/tested with Postman
  - Used to populate the GCP PSQL database; flask-database interaction facilitated via SQLAlchemy

Software Developer — COVID-19 Tracking Android App   **1/2022-5/2022**
- Real-time spatial and temporal tracking via Google Maps and Athena APIs using Android Studio with Kotlin and Gradle
  - Enriched RecyclerViews for aesthetic UI navigation
  - Heat Map construction with long click listeners within a certain tolerance of markers to generate a toast/preview
  - GPS implementation using Google Maps API

Education

The University of Texas at Austin   **8/2019-12/2023**
B.S. in Chemical Engineering | Certificate in Computer Science
Overall GPA: 3.65
Tech GPA: 3.92

Awards

International Engineering World Health Medalist   **UT Engineering Merit Scholarship**
- Engineering World Health Competition   - Engineering Honors Program
- Placed 3rd Globally   - Awarded $28,000

Technical Tools

Backend: Python / Flask / SQLAlchemy   **Mobile:** Kotlin / Android Studio / Gradle
Database: GCP / MySQL / PostgreSQL / NoSQL   **Numerical:** MATLAB / NumPy
Frontend: CSS / JS (React Node Next) / Bootstrap   **Project:** Git / Jira / Confluence
ETL: Scala / Apache Spark & Maven / Azure / KQL   **Visualization:** Altair / Lucidchart / Pandas