

EDUCATION

Texas State University*Bachelor of Science in Computer Science, Minor in Applied Mathematics**San Marcos, TX**May 2024***Austin Community College***Associate of Science in Computer Science**Austin, TX**December 2020***Relevant Coursework:** Object Oriented Programming, Data Structures and Algorithms, Calculus 1 & 2, Discrete Mathematics 1 & 2, Probability and Statistics, Linear Algebra, Machine Learning

EXPERIENCE

Charles Schwab*Austin, TX**Software Engineer Intern**June 2021 – August 2021*

- Engineered and deployed dark mode compatibility for the Schwab Retirement App on Android, enhancing user experience and aligning with modern UI/UX standards.
- Enhanced the app's user interface by integrating a corporate-standard design library, ensuring a consistent and visually engaging user experience across the platform.
- Wrote Kotlin and XML scripts to automate UI behaviors and apply consistent theming
- Used Jira and Bitbucket for agile sprint tracking and collaboration

Round Rock Sports Center*Round Rock, TX**Building Manager**January 2014 – Present*

- Streamlined customer tracking processes by developing an Excel-based system, significantly reducing data entry time for logging customer presence.
- Delivered outstanding customer service, managing interactions with over 200 customers daily while ensuring smooth operational flow.
- Orchestrated event setups and equipment management, supervising and directing a team to efficiently handle facility operations and client reservations.

PROJECTS

Lung Cancer Likelihood Prediction System

- Built a machine learning system using logistic regression and XGBoost to predict lung cancer likelihood from 1M+ synthetic patient records across six medical datasets (e.g., demographics, conditions, medications).
- Engineered robust preprocessing pipelines using Pandas, Dask, and SMOTE to handle missing data, normalize features, and rebalance class distributions, improving model accuracy by 30% over the baseline.
- Visualized model behavior and feature relevance using correlation matrices, scatter plots, and XGBoost `.plot_importance()`, identifying top predictors like blood pressure, ethnicity, age, and medication codes.

Financial Management Portfolio System

- Developed a Financial Management Portfolio System (FMPS) using Python and MySQL, enabling user profile management and financial instrument tracking.
- Integrated live market data collection using the yfinance library, providing real-time updates for comprehensive investment tracking and decision-making.
- Implemented SQL-based queries for detailed investment analysis and reporting, enhancing users' ability to make informed financial decisions.

Black Scholes Model Option Pricer

- Implemented functionality in Python to fetch and process live financial data using the Yfinance library, enabling accurate computation of market option valuations.
- Architected a Python-based financial model to calculate option prices using the Black-Scholes method.
- Currently refining a Dash-based interactive dashboard for Black-Scholes option pricing, aimed at providing a seamless user experience for complex financial calculations

Coronavirus Stat Tracker Voice Assistant

- Created a voice assistant using python that allows users to ask coronavirus related questions (i.e. number of cases and number of deaths by country).
- Scraped covid-19 data from a website using ParseHub software.

TECHNICAL SKILLS

Languages: C, C++, Go, Java, Kotlin, PowerShell (basic), Python, SQL**Operating Systems:** Linux (Ubuntu), MacOS, Windows**Developer Tools:** Android Studio, Bitbucket, Git, GitHub, Jupyter Notebook, MySQL, Oracle Database, Sublime, VS Code**Libraries:** Matplotlib, NumPy, Pandas, Plotly, PyTorch, Scikit-learn, Seaborn, Yfinance