Neel Gundlapally

936-648-0946 | neelgundlapally@utexas.edu | www.neelgundlapally.me

Education

The University of Texas at Austin — May 2026
Bachelors of Science in Computer Science, Minor in Business — *Austin, TX*
Relevant Coursework: Data Structures and Algorithms, Discrete Math for CS, Computer Organization and Architecture, Operating Systems, Linear Algebra, Statistics and Probability, Machine Learning, Artificial Intelligence, Software Engineering

Experience

Grubtok — May 2024 – August 2024
Software Engineer Intern | Flutter — *Austin, TX*
- Revamped video upload workflow using asynchronous processing, **reducing user clicks by 40%** and increasing efficiency
- Deployed a cross-platform profile sharing feature using deep linking and state management, resulting in a **10% increase in user engagement** across all platforms

The University of Texas at Austin — May 2024 – Present
Undergrad Research Assistant at Autonomous Mobile Robotics Laboratory | Python, C++ — *Austin, TX*
- Refactor the codebase for the Boston Dynamics Spot Robot, improving maintainability by **reducing the code by 20%**
- Reconfigure a **Python-based API into C++**, enhancing performance by 30% through efficient memory management

Undergrad Research Assistant at Oden Institute | Python — *Austin, TX*
- Convert STL heart data into precise 3D models of the mitral valve using Python libraries such as Pandas and Matplotlib
- Develop scripts to **analyze over 2,000 data points** from CSV files, performing calculations for 15+ heart structures
- Implement data transformations, including Cartesian to polar coordinate conversion and data normalization, significantly improving the spatial analysis accuracy for future heart structure studies

Riverside Technology Inc. — June 2023 – August 2023
Computer Repair Technician | Microsoft PowerShell — *Houston, TX*
- Developed an automated PowerShell script to streamline imaging 1,000+ computers, **decreasing imaging times by 15%**
- Conducted diagnostics and repairs on computers, improving performance by resolving critical hardware and software issues

Projects

Pintos Operating System | *C*
- Implemented multithreading with priority scheduling and utilized synchronization techniques using locks and semaphores
- Utilized virtual memory to enable stack growth, paging, and used disk-swapping to **increase memory capacity by 10%**
- Developed a file system for efficient disk management, allowing for multiple system calls such as exec(), create(), write()

Team Tracker Web Application | *Flask, React.js, HTML, CSS, Firebase*
- Created a full stack application using React.js, Python, and Firebase, along with an enhanced UI
- Built a centralized platform that provides streamlined access to schedules of users' favorite teams from 25+ leagues
- Integrated APIs using Flask, designing API endpoints to fetch and update schedules, **reducing retrieval times by 40%**
- Implemented a Firebase database for real-time data synchronization and continuous storage of users' team preferences

Tax Calculator App | *Flutter, Dart*
- Utilized Flutter and Dart to develop a mobile application that estimates employees' taxes and suggests ways to save
- Takes into account 10+ different factors to accurately estimate total tax owed, providing a comprehensive breakdown
- Created a dynamic interface, using provider patterns to manage state and ensure a smooth experience across various screens

Automated Password Generator | *Python, React.js, SQLite*
- Created a GUI that outputs and securely stores unique passwords, **increasing the strength of the password by 50%**
- Enabled customization of password's length and complexity, with options for special characters, numbers, and capitalization
- Integrated clipboard functionality in Python, storing the website name, password, and username in a SQLite database

Technical Skills

Java, JavaScript, C/C++, Python, HTML/CSS, Node.js, Spark AR, React.js, Flask, PowerShell, Flutter, iOS Development, SQLite, Firebase