Nil Patel

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EDUCATION

California State Polytechnic University, Pomona　　　　　　　　　　　Pomona, CA
Bachelor of Computer Science　　　　　　　　　　　　　　　　　　　*Expected May 2024*
- GPA: 3.6
- Relevant Coursework: Data Structures, Algorithms, Computer Architecture, Operating Systems, Programming Languages

EXPERIENCE

Board Member　　　　　　　　　　　　　　　　　　　　　　October 2022 – Present
CPP SEA (Software Engineering Association)　　　　　　　　　　　　　*Pomona, CA*
- Led LeetCode and resume workshops, with the goal of equipping members with practical skills for job applications and software engineering interviews.
- Managed and maintained communication channels by creating and sending HTML emails to keep members well-informed about events and activities.
- Organized social events with the aim of fostering a strong sense of community among club members and promoting networking opportunities within the software engineering industry.

Software Engineer　　　　　　　　　　　　　　　　December 2021 – August 2022
California State Polytechnic University, Pomona　　　　　　　　　　　*Pomona, CA*
- Developed and implemented controller software for Boston Dynamics' Spot robot in a team of software engineering research assistants, utilizing advanced technologies such as ROS (Robot Operating System), Python, and C++.
- Collaborated closely with cross-functional teams, including electrical engineers and mechanical engineers, to ensure the smooth integration of software with hardware components, leveraging technologies like sensor fusion, PID controllers, and real-time communication protocols.
- Presented the Spot robot's cutting-edge capabilities and its potential applications to various audiences, including classrooms and academic conferences, highlighting the use of state-of-the-art technologies like computer vision, SLAM (Simultaneous Localization and Mapping), and machine learning algorithms.

PROJECTS

NBA Statistics Application | *Technologies used: Flutter, Dart, Firebase*　　　January 2023 – April 2023
- Designed and developed a Flutter application that provides users with up-to-date statistics for NBA players during the current season, utilizing Sports.io's API for statistical data.
- Implemented Firebase authentication to enable secure sign-in/sign-out functionality for users and ensure the protection of sensitive user data.
- Enabled users to view players' statistics by team and search for players by name, enhancing the application's accessibility and usability. Additionally, published the application on Google Play to reach a wider audience and increase its visibility.

Hospital Management Subsystem | *Technologies used: Python, SQL, Tkinter*　　August 2022 – December 2022
- Developed a user-friendly Python application using SQL and MySQL databases, as well as the TKinter library for the UI, that enables patients and hospital staff to manage patient appointments securely through their own logins.
- Designed and implemented a comprehensive appointment scheduling system within the application, allowing users to schedule appointments, follow-up appointments, and appointments with specialty doctors with ease and efficiency.
- Ensured the application's robustness and security through rigorous testing and debugging, ensuring that patient data is kept confidential and that the application runs smoothly and reliably.

TECHNICAL SKILLS

Languages: Java, C++, Python, JavaScript, Dart, SQL, HTML, CSS
Frameworks: ReactJS, Bootstrap, Unity
Developer Tools: Git, Visual Studio Code, MS Office, Docker