Parth Patel

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SKILLS

Languages: Python, JavaScript, C++, C#, PHP, SQL, HTML/CSS
Frameworks/Libraries: Flask, Node.js, Express, Pandas, React
Development Tools: Postman, MongoDB, AWS, Firebase, Bash, Jira, Git, Docker

EDUCATION

University of Waterloo   Sep 2020 - Apr 2025
Bachelor of Applied Science — Systems Design Engineering   *Waterloo, ON*
- Cumulative GPA: 3.93/4.00, Dean's Honours List Recipient
- Relevant Courses: Data Structures and Algorithms, Digital Computation (C/C++), Human Factors in Design

EXPERIENCE

Backend Software Engineer Intern — Reebee, Inc   Sep 2021 - Present
Technologies: PHP, MySQL, Postman, Golang, AWS, Snowflake, Jira   *Kitchener, ON*
- Joined the backend team to develop features for Reebee's core application facing **1.2+ million active users**
- Developed an algorithm to efficiently share items across **650,000+ flyer pages** in seconds using **PHP** and **MySQL**
- Lowered API runtime by **43%** through restructuring embedded mapper functions and removing trivial data from requests
- Fixed **over 125 critical errors** and reduced memory usage by **32%** through refactoring the codebase with **PHPStan**

Software Developer Intern — Ceridian   Jan 2021 - Apr 2021
Technologies: C#, Azure, MongoDB, Postman, SQL, Kubernetes, Docker   *Toronto, ON*
- Streamlined data retrieval processes for **350+ engineers** by building a centralized configurations micro-service using **C#** and **MongoDB**, ensuring that every team's data can be grouped and securely retrieved in one localized place
- Reduced app failures by **96%** through developing a retry policy within API calls to automatically re-send failed requests
- Cut down risk of security breach within sensitive APIs to **<1%** by developing an authentication middle-ware with **C#/JWT**
- Increased code coverage from **53% to over 90%** with unit testing in **Xunit** that ensured correctly functioning code

Full Stack Developer — Waterloop   Sep 2021 - Present
Technologies: Node.js, Express, PostgreSQL, Mocha, Chai, React   *Waterloo, ON*
- Built the backend for a new recruitment service, replacing Google Forms, using **Node.js**, **Express** and **PostgreSQL**
- Developed API endpoints with **Node.js** and **Express** that introduces blog posts within the team's web interface
- Created new and modified existing integration tests with **Mocha** and **Chai**, certifying high performant code

PROJECTS

Diversify (Spotify Analytics Web App) ⎘ | *Python (Flask, Pandas), Azure, Spotify Web API, Chart.js, Heroku, HTML/CSS*
- Developed a web app that visualizes **over 600 users'** Spotify data and recommends new songs based on their interests
- Designed a **Python/Flask** backend which handled **58,000+ requests** to multiple endpoints for processing user data
- Parsed **2300 data points** of song features with **Pandas** and analyzed its sentiment using **Azure** to recommend new music

Companion (nwHacks 2021 Project) ⎘ | *Node.js, Express, Socket.io, Firebase*
- Received Honorable Mentions out of **700+ participants** for building a mental health chatroom at a 24-hour hackathon
- Configured a chat with **Socket.io** that ensures healthy conversations through an **AFINN-based sentiment analysis** model
- Integrated **Firebase** to perform authentication via Google OAuth and store real-time user metrics collected on the app

YearView (Nostalgic Photo Storage App) ⎘ | *Python (Flask), MongoDB, JavaScript, HTML/CSS*
- Constructed a **Flask** backend connected to a serverless **MongoDB** instance allowing fast image upload and delete
- Built **RESTful API** endpoints for encrypting user login details and image keys, enabling safe photo manipulation
- Decreased image upload time by **over 50%** through handling file uploads in bulk rather than one-by-one additions

INTERESTS

Garba (7+ Years of Indian Dance/Music), Hackathons, Basketball, Astronomy, Urban Exploring