Parth Patel

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TECHNICAL SKILLS

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

EDUCATION

University of Waterloo   Sep 2020 - Apr 2025
Bachelor of Applied Science — Systems Design Engineering   *Waterloo, ON*
- Cumulative GPA: 91% (3.93/4.00), Dean's Honours List Recipient
- Relevant Courses: Data Structures and Algorithms, Digital Computation (C/C++), Human Factors in Design

WORK EXPERIENCE

Backend Software Engineer Intern — Reebee, Inc   Sep 2021 - Dec 2021
Technologies: PHP (Laravel), MySQL, AWS, Postman, Jira   *Kitchener, ON*
- Will join the backend product team to develop and optimize core features for Reebee's web/mobile application

Software Developer Intern — Ceridian   Jan 2021 - Apr 2021
Technologies: C#, Azure, MongoDB, Postman, SQL, Kubernetes, Docker   *Toronto, ON*
- Reduced data retrieval time from **5+ minutes** to under **20 seconds** by leading the end-to-end development of **10+ REST APIs** using **C#**, providing developers easy access to thousands of app configurations stored in **MongoDB**
- Lowered 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 micro-services to **<1%** by developing authorization APIs with **JWT** and **Postman**
- Increased code coverage from **53% to over 90%** with unit testing in **Xunit** that ensured correctly functioning code
- Built CI/CD pipelines with **Azure DevOps** to deploy containerized apps to several **Kubernetes** clusters in production

TECHNICAL PROJECTS

Diversify (Spotify Analytics Web App) 🗗 | *Python/Flask, Pandas, Azure, Spotify Web API, Chart.js, Heroku, HTML/CSS*
- Developed a web app that visualizes **600+ users'** Spotify data and recommends new songs based on their interests
- Designed a **Python/Flask** backend which handles **75,000+** requests to the Spotify Web API for OAuth and data retrieval
- Utilized **Pandas** to parse **over 2300** data points of song features to recommend new music fitting any mood
- Analyzed the sentiment of song lyrics with **Azure** and **Chart.js** to display the eccentricity of a user's music taste

Companion (Submission to nwHacks 2021) 🗗 | *Node.js, Socket.io, Express.js, 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 NLP-based **sentiment analysis** model
- Integrated **Firebase** to perform authentication via Google OAuth and store various user metrics collected on the app

YearView (Nostalgic Photo Storage App) 🗗 | *Python/Flask, MongoDB, JavaScript, HTML/CSS*
- Constructed a **Python/Flask** backend connected to a **MongoDB** server allowing real-time 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

ACTIVITES

Developer & Mentor — Vex Robotics Team 356   Oct 2017 - Mar 2020
- Led a team of 25 to a division finalist finish out of **350+ teams** at the 2019 Vex Robotics World Championship
- Raised self-driving scores by **63%** through implementing a motion algorithm in **C++** that effectively tracked robot position
- Saved **50%** of the annual budget by optimizing software functionalities that prevented battery failures after matches
- Won the Skills Champion and Provincial Design Awards out of **150+ contenders** for having optimal robot performance

INTERESTS

Garba (7+ Years of Indian Dance), Hackathons, Basketball, Astronomy, CrossFit, Writing (Medium 🗗)