Samrath Singh Patpatia

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Summary

Aspiring software engineer with a strong foundation in web development, machine learning, and UI/UX design. Seeking to leverage technical skills and experience in an internship position at RevisionDojo.

Skills

Technologies: Python, JavaScript, HTML & CSS, Git, Bootstrap, Next.js, Tailwind CSS, React.js, Node.js, Flask, Pandas, scikit-learn, TensorFlow, Django, ExpressJS, Firebase, Vercel, OpenAI Gym

Languages: English, French, Hindi, Urdu, Punjabi

Education

Turner Fenton Secondary School — **Brampton, ON**
International Baccalaureate Diploma Program — *Expected: June 2025*

Notable Experiences

Freelancing

Freelance Web Developer — *June. 2022 – Present*

- **Optimized** client websites for performance and SEO, increasing page load speed by **40%** and improving search engine rankings, resulting in a **25%** increase in organic traffic.
- **Designed and implemented** responsive web designs using HTML, CSS, and JavaScript, enhancing user experience across various devices, leading to a **30%** increase in user engagement.
- **Developed** custom web applications tailored to client needs, achieving a **95% client satisfaction rate.**

Turner Fenton Robotics Club — **Brampton, ON**
Machine Learning Research Assistant — *Sept. 2023 - June 2024*

- **Designed and trained** a machine learning model to classify images with **85%** accuracy by utilizing Python and TensorFlow, enhancing the club's project capabilities.
- **Conducted** data collection and preprocessing, improving the dataset quality and increasing the model's performance by **15%**
- **Presented** research findings at a school science fair, earning a **first-place** award and recognition for innovative application of machine learning.

Projects

Parkinson's Disease Detection | Machine Learning — *Nov. 2023 – Present*

- **Developed a machine learning model with 90% accuracy** to detect Parkinson's Disease using Support Vector Machine (SVM) and a dataset of patient voice recordings, improving early detection rates
- **Implemented data preprocessing techniques** including feature scaling and data splitting, ensuring model robustness and accuracy by standardizing input features and using an 80-20 train-test split.
- **Enhanced model performance and reliability** by selecting the radial basis function (RBF) kernel for the SVM, leading to higher precision and recall in the detection process.

NeuroSpectra | Full Stack — *Sept. 2022 – June 2023*

- **Designed an interactive web application** to visualize EEG data and display brainwave patterns using React.js and D3.js, enhancing user engagement and understanding of neural activity.
- **Processed and analyzed EEG data** by implementing frequency analysis with Fast Fourier Transform (FFT) in Python, accurately identifying and extracting key brainwave bands.
- **Facilitated real-time brainwave monitoring** by creating a scalable and efficient data pipeline.
- **Implemented a robust backend using Flask** to handle EEG data uploads and perform real-time frequency analysis.