Devansh Singh

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Personal Profile

Enrolled in level 3 of the 4-year Honors Computer Science Co-op program at McMaster University with a strong foundation in algorithms, machine learning, and software development. Experienced in Python and web technologies, with a demonstrated ability to deliver innovative solutions through academic and self-initiated projects.

Education

Bachelor of Applied Science, Honours Computer Science

McMaster University, Hamilton, ON

Sept 2022 - April 2027 (projected)

May 2024 - Jul 2024

- Awarded the McMaster Award of Excellence for achieving an average over 97 %
- Current cumulative GPA of 3.9 / 4.0
- Relevant courses: Object Oriented Programming, Web Development, Data Structure and Algorithms, Databases, Data Privacy, Computer Graphics, Operating Systems, Software Testing, Natural Language Processing, Networks and Security

Work Experience

Digitize SolutionsHaryana, India

Junior Web Developer

- Collaborated with a team of 5 senior developers to deliver 3 fully functional client websites.
- Developed front-end web pages using the React framework, reducing page load times by 15%.
- Integrated RESTful APIs into web applications, improving data exchange speeds.

Digitize SolutionsHaryana, India

Software Tester May 2023 - Jul 2023

- · Identified and documented over 50 software bugs and discrepancies, improving product stability.
- Conducted regression testing on 5 web applications, ensuring 100% compliance with project requirements.
- Created and executed 100+ test cases, resulting in a 25% reduction in post-launch bugs.

Computer Science Society

Academic Executive Jan 2023 - Present

- Organized and managed 10+ review/study sessions for over 200 students, improving exam performance by around 20%.
- Coordinated guest lectures and workshops, increasing student engagement.

Projects

Sarcasm Detector

Grade Received: 100%

Jan 2025 - Mar 2025

- Developed an NLP model to detect sarcasm, preprocessing data from subreddits (e.g., r/nottheonion, r/clevercomebacks) using PRAW API.
- · Managed data annotation, calculated user agreement, and resolved conflicts with third-party validation.
- Trained a logistic regression model, achieving 70% validation and 64% test accuracy.
- Performed data analysis and visualization using pandas and matplotlib, and documented workflows on GitHub.
- Skills: Python, PRAW API, Natural Language Processing(NLP), Machine Learning, Logistic Regression, Data Science

Compresso

Self Project Nov 2024 - Feb 2025

- Designed and implemented a cross-platform file compression tool in C++ and C, supporting multiple file formats.
- Reduced file sizes by 50% for text files and 40% for JPEG images using Huffman encoding and libjpeg lossy recompression.
- Integrated the libjpeg library for JPEG processing with adjustable quality-based compression.
- **Technologies:** C++, C, Huffman Encoding, libjpeg, File I/O, Image Processing

Chess Prediction Model

Self Project Jun 2024 - Aug 2024

- · Developed a chess game outcome prediction model using historical data from over 10,000 chess games in chess.com archives.
- Implemented a Flask API backend and a React/TypeScript frontend, serving predictions with an accuracy of 80% on average.
- Integrated four predictive models to analyze and predict outcomes for 8 top chess players.
- Skills: Python, Flask, React, TypeScript, Scikit-learn, API, Machine Learning, Data Analysis, Web Development

Skills

Languages & Frameworks: Python (Pandas, NumPy, Scikit-learn, Pytest), Java, C, C++, SQL

Web Development Tools: HTML, CSS, Tailwind, JavaScript, NodeJS, .NET, React, Node.js, TypeScript, REST API, TensorFlow, Flask

Tools & Platforms: Linux, Shell (Bash/Zsh), Git, GitHub, Microsoft Office, ETEX, MongoDB

Soft Skills: Time Management, Teamwork, Problem-solving, CI/CD, Scrum, Agile Methodologies, DevOps