MAHIPAL RANA

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EDUCATION

York University, Lassonde School of Engineering

Jan 2021 – Apr 2025

Honours Bachelor of Science in Computer Science

Toronto, ON

Courses: Data Structures, Design and Analysis of Algorithms, Bash Scripting

PROJECTS

StockAlert360 | Python, News API, Twilio API

- Implemented an automated system that monitored stock prices and detected major movements, ensuring prompt notifications for informed decision-making
- Incorporated an automated news aggregator system utilizing the **News API** to fetch real-time news articles on stock price fluctuations; resulting in reduced research time, and saving over **20+** hours per week
- Integrated the **Twilio API** to implement real-time SMS notifications for stock news and price changes, increasing user engagement by **40%** and expanding reach to remote users

MyPass | Python, Tkinter, JSON, Pyperclip

- Developed a password manager application using **Python** and **Tkinter**, creating a user-friendly graphical user interface facilitating password generation with varying lengths, complexity, and requirements, thus increasing password strength by **70%**
- Created a highly secure JSON file system utilizing encryption techniques and data validation, ensuring data
 integrity and confidentiality; lowered the risk of security breaches by 75% and enhanced password
 management efficiency by 40%
- Streamlined user experience with one-click password copying feature using **Pyperclip** module; decreased time spent on manual password entry

Snap Stat | Bash

- Devised a **Bash** script that automates the generation of adjustable dimension thumbnail files for every file within a specified directory and the associated subdirectories
- Facilitated the automation of helper file generation for image data located in a designated directory and the accompanying subdirectories, encompassing the creation of metadata and thumbnails

CineFlix | HTML/CSS, Javascript, Node.js, Express, MongoDB

- Orchestrated the creation of a user-friendly and flexible user interface utilizing HTML, CSS, and JavaScript
- Leveraged Replit's platform to seamlessly develop server-side logic using Node.js and Express, effectively
 handling HTTP requests and responses while integrating MongoDB as the database for efficient storage
 and management of movie data

EXPERIENCE

Computing Support Assistant

Sep 2023 – Dec 2023

University Services Centre at York University

Toronto, ON

- Resolved technical issues promptly and efficiently, reducing service disruptions by 70%
- Performed basic troubleshooting of various technologies and equipment, ensuring minimal downtime and uninterrupted operations

Frosh Week Volunteer

Sept 2022

Lassonde School of Engineering

Toronto, ON

- Executed and monitored events for about **400** new undergraduate students during Frosh Week, creating a welcoming and inclusive environment
- Managed all aspects of event planning and logistics for **15+** events, from venue selection and vendor negotiation to budget management and marketing; achieved **95%** attendee satisfaction rate

TECHNICAL SKILLS

Languages: HTML/CSS, JavaScript, Java, Python, C/C++, SQL, Bash

Tools & Frameworks: Node.js, Express, MongoDB, JQuery, Bootstrap, Pandas, Git