Alexander Bhasin
Software Developer

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Education

Carleton University Sept 2018 – April 2023
Bachelor of Computer Science, Honours Internet Security Stream, GPA 11.44/12.00 Ottawa, Ontario

Experience

Web Developer Co-op | `PHP` `JavaScript` `HTML/CSS` `WordPress` Sept 2022 – Dec 2022
Bank of Canada Ottawa, Ontario
- Contributed to improving the bank's fleet of 6+ websites using various technologies
- Championed the development of new accessibility features, improving the overall clarity of search functionality
- Ensured proper regression testing through the development of test cases and documentation
- Increased the flexibility of the development process by 25% through collaboration in an agile team

Software Developer Co-op | `Python` `Java` `Objective-C` `Android` `iOS` Sept 2020 – Dec 2020
Paphus Solutions Ottawa, Ontario
- Added NLP functionality to classification analytics in TensorFlow, increasing the capabilities of the analytics by 50%
- Modified user interfaces for Android applications, to provide a seamless user experience
- Migrated 4000+ lines of code written in Java to Objective-C to maintain iOS applications
- Integrated multiple APIs across various applications, resulting in an improved accuracy of calculated information

Projects

Accessibility Applications | `JavaScript` `HTML/CSS` `Python`
- Designed a development tool that finds colours that meet the minimum contrast requirements
- Developed a web scraper that evaluates the accessibility metrics of different websites
- Built a Python application that allows the user to upload PDF/docx files and have them converted into TTS

Microsoft AI for Accessibility Project | `Svelte` `Swift` `Java`
- Designed a web/mobile aplication that uses AI to aid individuals with various mental health disorders
- Built a prototype for the application using the OpenAI API and Svelte

AI Comedy Talkabot | `Python`
- Integrated TorToiSe TTS with GPT models to deliver a talking bot that emulates a famous comedian
- Built a tool that batch converts MP3 files to the required WAV file format for TorToiSe

Fitness Centre Monitoring Software | `C` `QNX` `JavaScript` `HTML/CSS`
- Developed a server in C using the QNX RTOS that keeps track of relevant information concurrently
- Evaluated the data produced by the server through the creation of a statistics page equipped with charts

OASIS Medical Device Simulator | `C++` `Qt` `SQLite`
- Programmed a simulator for a medical therapy device in C++, making use of the Qt framework
- Implemented multiple design patterns into the core design of the simulation, ensuring an accurate replication

Skills

Languages: Java, Python, C, C++, JavaScript, TypeScript, PHP, HTML/CSS
Technologies: Node.js, Express, Svelte, Qt, MySQL, MongoDB, WordPress, Linux, QNX Neutrino
Developer Tools: Git CLI, SVN, GPT, Jira, Docker, VS Code, LaTeX
Concepts: Artificial Intelligence, Object Oriented Programming, Algorithms and Data Structures, Agile Development/Modeling, W3C Accessibility Standards, Cryptography, RESTful Design