Ekam Gill

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Education

University of Victoria   **Victoria, B.C.**
Bachelor of Science, Computer Science (3rd year)   *Expected Graduation Date: April 2025*

Technical Skills

- Object-oriented programming in Java
- Low-level programming in C
- Data analysis and scientific computing with Python
- Statistical computing and graphics with R
- Unix scripting
- Proficiency in Microsoft 365 products
- Full-stack web development using HTML, CSS, Javascript, and React
- Embedded systems programming in AVR Assembly
- Version control with Git and GitHub
- Familiarity with Windows, MacOS, Linux, and Unix

Technical Projects

Personal Website   *January 2024*
- Developed a website as a platform to showcase personal achievements, projects, and skills
- Demonstrated proficiency in HTML and Javascript to create a visually appealing and functional website, reflecting an understanding of web development best practices

Lego Star Wars Animated Scene   *November 2023*
- Developed a dynamic and visually compelling program using JavaScript and WebGL to create an animated scene
- Implemented hierarchical transformations for complex 3D movements, showcasing expertise in graphics and spatial transformations
- Used camera techniques and integrated textures with mapping, enhancing user perspective and emphasizing visual aesthetics

Python Art Generator   *April 2023*
- Developed a program to generate HTML and SVG code, using Python
- Managed sequential text files using the Python file I/O API
- Practiced incremental software development

Airline Analytics   *February 2023*
- Developed a Python program to provide deep insights into airline data based on user input, using Python libraries such as Pandas and NumPy
- Conducted data cleaning, manipulation, and exploratory analysis on large data sets to identify key trends and patterns
- Gained experience in data analysis, Python programming, and software development

Airline Route Generator   *February 2023*
- Designed and implemented a C program to generate airline routes based on user input
- Employed Unix filters to manipulate and output airline data based on user-defined parameters
- Demonstrated proficiency in C programming, algorithm design, and Unix commands

Morse Code LED Display   *November 2022*
- Programmed an Arduino using AVR Assembly to flash LEDs in Morse code, displaying an understanding of low-level programming languages and LED behaviour
- Constructed strong problem-solving skills by overcoming challenges related to hardware interfacing, debugging, and optimization

Work Experience

Zen Maker Lab Inc.   **Victoria, B.C.**
Engineering Instructor & Projects Developer   *June 2023 - Present*
- Assisted students in coding and programming projects, including the use of Arduino microcontrollers to build and program robots, facilitating their understanding of hardware-software interactions
- Collaborated with a multidisciplinary team to design and customize educational programs, aligning content with curriculum standards and age-appropriate learning objectives