Gulkaran Singh

647-512-8096 | gulkaransingh.m@gmail.com | linkedin.com/in/gulkaran | github.com/gulkaran | gulkaran.ca

EDUCATION

McMaster University   Hamilton, ON
Bachelor of Applied Science in Computer Science, Minor in Business   ***GPA: 3.9/4.0***
- **McMaster Award of Excellence**: achieving a final admission average in the top 10% of the Engineering faculty
- **Related Coursework**: Data Structure & Algorithms, Databases, Linear Algebra, Discrete Mathematics, Computer Architecture, Microeconomics, Organizational Behaviour, Information Systems in Business

EXPERIENCE

Canada's Wonderland   April 2023 – Aug 2023
Software Developer Intern   *Vaughan, ON*
- Built a scalable C# application using the .NET framework and the Model View ViewModel (MVVM) design pattern to automate scheduling processes for **1000+ employees** in the Rides department.
- Engineered an efficient scheduling automation tool for the Rides department, resulting in a **300% improvement** in supervisors' workflow efficiency through the implementation of a backtracking algorithm that adheres to shift times, breaks, certifications, and unexpected call-ins.
- Integrated real-time synchronization with a **SQL database** containing employee records to provide accurate information to supervisors and enable efficient scheduling.

ByteKode Hackathon   April 2021 – Aug 2022
Software Developer & Event Organizer   *Toronto, ON*
- Organized and facilitated two successful **non-profit** hackathon events for novice programmers, introducing **200+** attendees to basic programming concepts such as API usage and JSON parsing.
- Developed and delivered engaging webinars to educate participants on the fundamentals of coding, resulting in a **98%** satisfaction rate among surveyed attendees.
- Secured sponsorships from **12+** organizations, contributing to over **$22,755** in prizes awarded to participants

PROJECTS

Handtex - AI Image Detection | *Python, React, TensorFlow, OpenCV*   Dec 2022
- Designed a convolutional neural network with TensorFlow, utilizing machine learning to achieve a **97%** testing accuracy in predicting mathematical symbols from images.
- Deployed a full-stack web application utilizing React and Flask API frameworks, allowing users to create and upload hand-drawn mathematical expressions for classification by the neural network, resulting in a user retention rate of **80%**.

Personal Portfolio - gulkaran.ca | *Typescript, React, Next 13, Three.js, Framer Motion*   Oct 2023
- Developed a Next.js and React-based personal portfolio website to showcase a collection of **4+ projects** and **130+ pages** of academic work, effectively demonstrating a diverse skill set.
- Created an engaging user experience by incorporating an intricate **Three.js model** on the hero page, demonstrating creative design skills and proficiency in web development technologies.

OurDorm | *React, Firebase, Socket.IO, Node.js, Material UI*   Sept 2022
- Developed a responsive full-stack web application with React and Material UI serving the frontend to help split expenses and manage budgets between roommates.
- Managed group chats through Socket.IO rooms to allow a real time view of all the shared pages including the budget planner, shopping lists, and live chat.

YRCodes | *JavaScript, Bootstrap, HTML5, CSS, Google Code Prettify*   Aug 2021
- Launched an educational learning platform for York Region (YRDSB) students; ultimately supported and endorsed by the YRDSB superintendent.
- Incorporated comprehensive video explanations, exemplar code snippets, and a built-in compiler for practice problems.

TECHNICAL SKILLS

Languages: Python, Typescript, JavaScript, Java, C, C#, C++, SQL, HTML, CSS, Haskell, XAML, LaTeX, MATLAB
Technologies and Tools: React, Node, Next, Three.js, .NET, Framer Motion, Bootstrap, Firebase, Flask, Tensorflow, Figma, OpenCV, Socket.IO, AWS, Material UI, Tailwind, Git, GitHub, VSCode, AutoCAD, Fusion 360