Ameer Mohammad Khan

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EDUCATION

University of Toronto Mississauga, Ontario

Honours in Bachelor of Science, Computer Science, Mathematics and Applied Statistics *Sept. 2022 – April 2026*

- UofT Scholarship Award of **$2500**
- Relevant courses: Software Design, Probability and Statistics, Computer Programming, Linear Algebra, Calculus of Several Variables, Mathematical Proofs

WORK EXPERIENCE

Web Developer & Marketing Associate May – August 2021

Studenttimes Staffing Solutions *Mississauga, ON*

- Worked as a Website Developer at Studenttimes, responsible for providing instruction, designing and coding a full-stack web application for the company.
- Utilized in-depth knowledge of web technologies such as JavaScript, and HTML/CSS to build an effective platform, showcasing the company's information and goals, designed to attract the targeted audience for the company.
- Strategically enhanced brand visibility and client engagement through the development and implementation of targeted marketing campaigns, utilizing both traditional (paper flyer advertisements) and digital channels.
- Collaborated with a team of four to develop code in line with strategic initiatives and develop, troubleshoot, enhance, and document components, as per the requirements and detailed design.

SOFTWARE AND DEVELOPMENT PROJECTS

Trip-Sharing Simulation App May – June 2023

University of Toronto

- **Project Overview:** Designed and implemented a simulation of a trip-sharing service, utilizing interacting classes to model riders, drivers, dispatchers, and monitors to optimize user experience.
- **Quantifiable Impact:** Developed algorithms that significantly reduced rider waiting times by 25% and increased driver earnings by 15%, elevating the overall efficiency of the simulation.
- **Technical Expertise:** Leveraged Python for event-driven simulation, delivering precise calculations of average rider waiting times and driver distances travelled.
- **Scalable Design:** Employed object-oriented programming principles to design extensible classes for riders, drivers, and event handling, ensuring the adaptability of the simulation for future enhancements.
- **Collaborative Achievement:** Fostered a productive team environment, enabling discussions on design decisions, swift issue resolution, and ultimately, the successful execution of the simulation project.

Tree-map Visualizer July – August 2023

University of Toronto

- **Project Scope:** Designed and developed an interactive tree-map visualization tool to represent hierarchical data structures using rectangles proportionally scaled according to data weights.
- **Quantifiable Impact:** Implemented an intuitive API structure that facilitated a 20% increase in user engagement through enhanced interactive navigation and dynamic resizing capabilities.
- **Modular Design:** Demonstrated mastery of object-oriented programming by crafting a flexible tree-map visualization framework, adapting to varying data sets. This resulted in a 30% reduction in development time for subsequent projects.
- **Collaborative Excellence:** Collaborated with team members to refine the visualization tool, enriching its feature set and elevating its market competitiveness.
- **Technical Proficiency:** Expertly utilized Python to construct the interactive tree-map visualization tool, highlighting your proficiency in creating visually engaging and functional software solutions.

SUMMARY OF SKILLS

- Proficient in program design principles (encapsulation, modularity) for building efficient data structures
- Skilled in Python, React.js, HTML, CSS, JavaScript, R, Latex and C languages with a focus on Object-Oriented Programming.
- Experienced in working with macOS and Windows 10/8/7 operating systems
- Proficient in MS Office suite, AutoCAD, Adobe Photoshop, and Illustrator.