Sean Wotherspoon

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Education

Simon Fraser University   **September 2021 – May 2026**
Bachelor of Science, Computing Science   *Burnaby, BC*

Relevant Coursework: Data Structures, Algorithms, Software Development Practices, Database Systems, Computer Architecture, Web Development, User Interface Design, Biomedical Computing Methods

Projects

Mealpository | *Angular, Azure, Django, SQL, TailwindCSS*   **May 2024**
- Designed a user-friendly recipe management application using Angular, Django, and an Azure SQL database, enabling users to upload, save, and manage recipes within their accounts
- Trained an **Azure Document Intelligence ML model** for recipe text extraction, achieving an accuracy rate of **95%** resulting in a **50%** recipe upload time reduction
- Implemented **an automated meal planning system**, considering user preferences and recent meals, resulting in significant time savings for users

TypeAid | *React, Django, TailwindCSS*   **March 2024**
- Constructed a web-based text editor using React and Django to enhance accessibility for users with motor disabilities, featuring **a custom keyboard interface** with grouped keys for easier navigation
- Implemented **token-based authentication** using Django Rest Framework to protect user data, shortcuts, and preferences, ensuring robust protection against unauthorized access
- Developed **a machine learning model** using N-grams analysis and frequency-based word prediction algorithms, enhancing typing efficiency and reducing keystrokes for users by **60%**

Yelp Database Application | *Java, Swing, SQL*   **December 2023**
- Developed an intuitive **Java Swing GUI** allowing users to view businesses, submit ratings, and add friends, providing a fluid user experience
- Established connectivity to an **MS SQL database** using JDBC, enabling secure and efficient data operations
- Designed an **Entity-Relationship Diagram** to visually map the database schema, ensuring streamlined data organization and and scalable architecture

N-Puzzle Solver | *Java*   **March 2023**
- Constructed a versatile **Java** application that efficiently solves N-Puzzles of varying dimensions by dynamically adjusting to puzzle input, to achieve efficient solving times
- Implemented an adaptable solving approach dynamically selecting between variants of the **A* algorithm**, to solve the puzzles, guided by their respective sizes
- Utilized **parent-child relationships** to deliver a complete move sequence list leading to enhanced usability and user engagement with the solver

Work Experience

Personal Shopper   **May 2023 - Present**
Real Canadian Superstore   *Coquitlam, BC*
- Consistently achieved a rate of 150 units per hour with a 99% item fulfillment rate through meticulous attention to detail, improving the store's overall customer satisfaction
- Led a cohesive team utilizing exceptional time management skills to delegate loading duties based on the priority of orders reducing customer waiting time
- As an integral part of the loading team, I communicated politely and effectively with my team members and customers while swiftly loading orders increasing the precision of order fulfillment

Technical Skills

Languages: Java, Python, C, C++, SQL, TypeScript, JavaScript, x86, HTML5, CSS3
Frameworks/Libraries: Angular, React, Django, Swing, TailwindCSS
Developer Tools/Technologies: Git, MSSQL, Microsoft Azure, Linux, Maven, Make