

# SEAN WOTHERSPOON

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## TECHNICAL SKILLS

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**Languages:** Java, Python, C, C++, SQL, TypeScript, JavaScript, x86, HTML5, CSS3

**Frameworks/Libraries:** Angular, React, Django, Swing, TailwindCSS, Tesseract OCR

**Developer Tools/Technologies:** Git, Docker, Nginx, PostgreSQL, MSSQL, Microsoft Azure, Oracle Cloud Infrastructure (OCI), Linux, Maven, Make, RESTful APIs

## PROJECTS

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**Mealpository** | *Angular, Django, Docker, Nginx, OCI, PostgreSQL, TailwindCSS, Tesseract OCR* **August 2024**

- **Engineered and deployed a full-stack recipe management platform** using **Angular** and **Django**, containerized with **Docker**, and hosted on **OCI** with **PostgreSQL** for scalable and efficient deployment.
- **Configured and optimized Nginx** as a reverse proxy and load balancer, integrating **SSL/TLS** for secure connections and improving the platform's reliability and security
- **Automated recipe text extraction** with **Tesseract OCR** integrated into **Django REST APIs**, enhancing the user experience by reducing manual data entry efforts

**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 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

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**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

## EDUCATION

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**Simon Fraser University**

*Bachelor of Science, Computing Science*

**September 2021 – May 2026**

*Burnaby, BC*

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