# James Pham

✉ jamespham2000@gmail.com   📞 780-720-2916   🔗 jamespham.com   in James Pham   ○ jamespham0317

## Technical Skills

**Programming Languages:** C++, Java, Python, C
**Web:** HTML5, CSS, JavaScript, SQL
**Technologies:** Git, React, PostgreSQL, Railway, JUnit

## Projects

**Thyme Saver** — *React, HTML5, CSS, JavaScript, PostgreSQL, Railway*                                        *March 2025*

- Designed and developed a **full-stack** cooking assistant web application using **React** and powered by the **Google Gemini Vision API**, delivering an **intuitive** and **dynamic** user experience
- **Deployed** the application seamlessly on **Railway**, ensuring **scalability** and **reliability**
- Enhanced security by **encrypting** user **login-credentials** with **BCrypt** and securely storing them in a **PostgreSQL database**
- Built a robust **back-end** server to handle **client requests** efficiently, ensuring smooth communication between the **front-end** and **database**

**Maze Generator and Solver** — *C++, Raylib*                                        *April 2025*

- Developed an interactive application to **generate** and **solve** mazes using multiple algorithms with **real-time** animation and visualization
- Implemented several **generation algorithms**, including DFS, Prim's algorithm, and Kruskal's algorithm
- Built **solver implementations** for DFS, BFS, A* Search, Greedy Best-First Search, Wall Follower (left/right hand), and Dead-End Filler
- Integrated user input for live toggling between algorithms and animated execution with **step-by-step visual feedback**
- Designed a **flexible** and **modular** codebase using C++17 and Raylib, with custom graphics rendering and game loop logic

## Work Experience

**Barista**                                        *Edmonton, AB*
*Dream Tea*                                        *November 2021 – Present*

- Efficiently crafted and served a wide variety of beverages in a high-volume, fast-paced environment
- Accurately handled transactions, operated the cash register, and managed the payment terminal
- Provided knowledgeable and attentive customer service, addressing inquiries about ingredients and allergen concerns

**Music Instructor**                                        *Edmonton, AB*
*Northgate Music School*                                        *May 2018 – March 2019*

- Delivered tailored musical instruction to over 200 students, fostering their growth and development in piano skills
- Effectively communicated concepts to students across diverse age groups, ensuring understanding and engagement
- Adapted teaching methods to meet the unique needs and learning styles of individual students

## Volunteer Experience and Awards

**Mentor**                                        *Edmonton, AB*
*You Can Ride 2*                                        *March 2023 - March 2023*

- Volunteered as a mentor in a six-week program, assisting children with mental challenges and disabilities in building the skills and confidence to ride a bike independently

- Provided hands-on guidance, encouragement, and instruction to support their progress

**Telus Friendly Future Social Impact Award**

Awarded for displaying social impact initiative

**Hill Top Award**

Awarded for community involvement and leadership

## Extracurricular Activities

**Piano**

Achieved Level 10 certification in the Royal Conservatory of Music (RCM) piano program, demonstrating advanced proficiency in performance, music theory, and technical skills

**Volleyball**

Played as a member of both school and intramural volleyball teams, demonstrating strong teamwork, leadership, and athletic skills, while consistently contributing to team success in competitive matches

## Education

**University of British Columbia**                                    *Vancouver, BC*
*Bachelor of Science (Computer Science)*                   *Expected Graduation: 2027*

**Awards:** Trek Excellence Scholarship (Top 5% GPA in undergraduate year), Dean's Scholar



science.coop@ubc.ca | 604-822-9677