

# TECHMENG AING

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## EDUCATION

### Queen's University

Bachelor of Computing (Honours) - BCompH, in Computer Science. — cGPA: 3.75/4.3

Courses: Computer Science I & II, Cognitive Science, Differential & Integral Calculus I & II, Linear Algebra, Discrete Structures.

Kingston, ON

Expected 2028

## EXPERIENCE

### Software Developer

Jan 2025 – Present

#### ✎ [Synopsis Network](#)

Kingston, ON

- Developing a cross-platform app using **React Native**, focusing on creating a scalable and user-friendly interface.
- Collaborating with a multidisciplinary team to implement features and meet **100% of Agile sprint deadlines**.
- Optimizing app performance by writing efficient **TypeScript** and **CSS**, improving code readability and maintainability by **15%**.
- Designing UI/UX prototypes in **Figma**, targeting a projected **20% increase** in user engagement upon release.

### Back-End Developer

Jan 2025 – Present

#### ✎ [Queen's Game Development Club \(QGDC\)](#)

Kingston, ON

- Developing and maintaining the back-end architecture for the QGDC website using Node.js, SQL Server, and OpenGL/JS to ensure smooth user experience and functionality.
- Collaborating with a team of **5+ developers** to implement new features, such as member management systems and event tracking tools, increasing site engagement by **15%**.
- Optimizing server-side processes, improving page load speed by **25%**, ensuring availability for users accessing the site daily.
- Maintain REST APIs to integrate dynamic content and backend systems, improving site's real-time data processing capabilities.

### Onboard Computer System Engineer

Sep 2024 – Dec 2024

#### ✎ [Queen's Space Engineering Team \(QSET\)](#)

Kingston, ON

- Contributed to the integration of the onboard computer system for the CubeSat satellite, managing **5+ subsystems** through effective microprocessor configurations.
- Researched **FPrime** and **I2C** protocols, enhancing data transmission reliability by **15%** across subsystems.
- Assisted in designing communication logic for the Raspberry Pi and Comms Module microchip over I2C, reducing wiring complexity by **30%**.
- Developed **C++** components for FPrime, integrating functionalities with over **100 test messages** processed during validation.

### Academic Tutor

Dec. 2023 – May 2024

#### ✎ [John F. Ross Collegiate Vocational Institute \(JFR\)](#)

Guelph, ON

- Provided one-on-one tutoring to **2 students** over a period of **4 months**, focusing on MHF4U and ESLDO.
- Conducted weekly tutoring sessions, resulting in an average **5-10% improvement** in grade consistency for both students.
- Mentored students effectively and efficiently, ensuring sustained progress and a **100% retention rate**
- Transformed complex concepts into clear, actionable steps, empowering students to solve advanced problems with confidence.

## PROJECTS

#### ✎ [QuantaChess](#) | *Java, Maven, Git, Swing GUI (Java), Python*

- Co-led the development of a **Java-based chess app** with a GUI, collaborating with **3 developers** over **1-2 months**.
- Implemented core mechanics including **move validation**, **automatic pawn promotion**, and **check/checkmate detection**, rigorously tested across **100+ games** to ensure reliability.

#### ✎ [Tetriverse](#) | *Java, Maven, Git, Swing GUI (Java)*

- Developed a **Java-based Tetris game** with **1 teammate**, successfully delivering the project within **1-2 months**.
- Engineered features like **Pause**, **Restart**, and **Next Shape Preview**, tested in over **100 games**, and created a Score Display system that tracked **1,000+ lines cleared**.

## TECHNICAL SKILLS

**Languages:** Java, Python, C++, JavaScript, TypeScript, HTML/CSS, SQL

**Frameworks:** React, React Native, Next.js, Node.js, Express.js, Bootstrap

**Tools and Libraries:** AWS, Git, FPrime, TensorFlow, PyTorch, Figma, OpenGL/JS, REST APIs

**Concepts and Protocols:** UI/UX Design, Agile Development, CAD, SOLIDWORKS, I2C, Back-End Architecture, Raspberry Pi

## ACHEIVEMENTS

#### Queen's University | Arts and Science International Admission Award

Jan. 2024

- Awarded for exceptional academic achievement and excellence, this honour is valued at **\$60,000**.

#### John F. Ross Collegiate Vocational Institute | Ann Welland Memorial Scholarship

Jun. 2024

- Recognized for outstanding perseverance, leadership, and academic excellence – valued at **\$100**.