

# ETHAN XAVIER GAN

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## TECHNICAL SKILLS

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Python, Java, C++, Arduino C, SQL, JavaScript, React, Cloud Computing (Azure Certified), SolidWorks, MATLAB, GitHub, CSS, HTML, Square Commerce, Adobe Creative Cloud, Microsoft Office, Google Suite.

## EXPERIENCE

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### **Project Team Member** (January 2025–April 2025)

WATERLOO EXPERIENCE (WE) ACCELERATE PROGRAM, Waterloo, ON

- Designed an AI-Chatbot-driven fraud prevention tool for seniors using Microsoft Azure services to help reduce the increasing rate of financial fraud among seniors.
- Planned end-to-end user experience interactions through UX Design flow diagrams and a wireframe mockup to minimize user prompting required.
- Collaborated with a remote team of five over Microsoft teams bi-weekly to conceptualize the product.

### **Science and Technology Education Instructor** (2023-Present)

PRINCIPAL ACADEMY, Vaughan, ON

- Designed and taught a game-oriented 1-week object-oriented curriculum for Python, Java and Scratch for capacities of 20+ students of grades 4-12 for the online Summer Coding Camp, leading to 60% growth.

### **Coding Contest Manager** (2023-2024)

THORNHILL SECONDARY SCHOOL COMPUTER CLUB, Thornhill, ON

- Led a team of students to launch coding contests on graph theory and other concepts for 50+ participants.
- Created automated input/output test suites for judging problem submissions saving 40+ person-hours.

### **Media Coordinator** (2022-2024)

PRINCIPAL ACADEMY, Vaughan, ON

- Applied Adobe Creative Cloud to optimize UX, branding, logo design and multimedia content creation on [www.principalacademy.ca](https://www.principalacademy.ca) and promotional campaigns of up to 10% conversion.
- Customized credit/debit card payment process on Square platform for course SKUs.

## PROJECTS

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### **PORTFOLIO WEBSITE** | React, JavaScript, React Router, CSS, HTML, Markdown, Netlify ([Github](#))

- Developed and designed a responsive, modular, and react-based website rated 96 for accessibility and 100 for best practices on Lighthouse Metrics.

### **WALKALONG HOVERCRAFT** | Arduino C, SketchUp, TinkerCAD, 3D Printing & Design, Servo/Motors ([Link](#))

- Used Arduino C to communicate rudder movements and motor intensity through a remote receiver, SketchUp for drafting 3D designs, and TinkerCAD for 3D printing.

### **TANKRUNNERS** | Java, JFrame, JPanel, OOP ([Github](#))

- Developed and debugged a procedurally generated dungeon adventure game with adaptive AI enemies and random map generation to test pathfinding algorithms.

### **E-WASTE EVERYWHERE** | CSS, HTML, GitHub ([Github](#))

- Leveraged GitHub web-hosting to highlight environmental impact of e-waste and sustainable practices.

## EDUCATION

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### **Bachelor of Applied Science in Systems Design Engineering, Honours** (Graduating May 2029)

UNIVERSITY OF WATERLOO, Waterloo, ON

**Relevant Courses:** Microsoft Azure AI and Azure Fundamentals Certified, WHMIS 2015 Certified, SYDE 121 (C++), SYDE 101L (Solidworks/CAD), SYDE 113 (MATLAB), CodeAcademy Full Stack Engineer

**Awards:** President's Scholarship of Distinction 2024, TELUS Entrance Scholarship 2024