# Kevin Zhang

Ottawa, Ontario
(613)-879-3181
Kevinzhang3303@gmail.com | GitHub | LinkedIn| Portfolio Website

## Education

***Bachelor of Computer Science, Major in Philosophy*** Sep 2019 - Present
Carleton University, Ottawa, ON

- Fourth Year Undergraduate, CGPA 9.22/12.0 (B+)
- Expected Graduation: June 2025

**Relevant Courses**: Abstract Data Types and Algorithms, Introduction to Systems Programming, Introduction to Software Engineering, Fundamentals of Web Applications, and Computer Vision

## Employment

**Application Developer** May 2024 - Aug 2024
Inchtone

- Utilized HTML, CSS, and JavaScript to design and implement responsive and user-friendly interfaces for the inventory management web application.
- Created RESTful APIs using Node.js and Express.js to manage data flow between the frontend and backend.
- Implemented session management by utilizing cookies for storing session data, ensuring secure and persistent user sessions.
- Integrated Socket.io for real-time updates and notifications, enhancing the user experience by providing instant feedback on inventory changes.

**IT ServiceDesk Analyst | IT Technician** Jan 2023 - May 2023
Stega Networks, Ottawa, Ontario

- Resolved user-reported computer and networking issues and requests through a ticketing system.
- Configured and set up computers and networking devices, installing necessary software and hardware.
- Provided on-site client support, including installing, replacing, and troubleshooting computer systems and network devices.
- Performed networking tasks, such as cabling and creating CAT6 cables to ensure stable ethernet connections.

**Security Patroller** Sep 2021 - Sep 2022
National Defence Headquarters (Carling) | Royal Canadian Mounted Police (Leikin)

- Diligently patrolled assigned areas to ensure safety and security.
- Swiftly responded to service calls and emergencies.
- Provided assistance to the public, including directing traffic and providing first aid.
- Actively maintained physical fitness and participated in ongoing training, focusing on law enforcement techniques and emerging security technologies.

## Applied Projects

**Face Recognition Web Application** – **Live Demo** Sep 2024

- Developed a full-stack web application using React for the client-side, with Node.js and Express for server-side logic, handling API requests and responses.
- Integrated the Clarifai API for facial recognition, processing image data and rendering a bounding box around the detected face using image coordinates.

- Implemented secure authentication using bcrypt for password hashing and JWT for session management, with PostgreSQL as the database for storing user profiles and activity data.
- Utilized Knex.js to manage the connection to the PostgreSQL database, handling SQL queries for user registration, login, and tracking image submission entries.

**Simulated AED device** Dec 2023

- Developed a simulated Automated External Defibrillator (AED) device using C++ in Qt Creator, focusing on accurate emulation of its operations.
- Implemented an observer pattern for effective state management, utilizing Qt's signals and slots for responsive event handling.
- Created a user-friendly interface and simulated body that allows users to interact with the AED simulation, providing a more comprehensive and practical experience for users.

**Chat Server with Private Messaging** Nov 2022

- Developed a chat server in JavaScript using node.js and socket.io for real-time communication.
- Implemented private messaging functionality, allowing users to send and receive direct messages to and from specific individuals within the chat server.
- Implemented authentication and authorization using JSON Web Tokens (JWTs) to secure user data and ensure only authorized users can access the chat server.

**Line Obstacle Bot** May 2019

- Worked with Arduino hardware and software to build and program a line bot to complete an obstacle course.
- Created a 3D mockup of the base design to visualize and plan out the design and functionality.
- Programmed the Arduino using C++ to control various components and functions based on surrounding environment data received from the sensors.

**Lego Robotics Battle Bot** Mar 2019

- Built and programmed a robot using LEGO Mindstorms EV3 components, including motors, sensors, and controllers.
- Tested and fine-tuned the robot's movements and responses to various stimuli using trial and error methodologies.
- Competed in a battle bot tournament against other student-built robots, using strategic and defensive tactics to defeat opponents.

## Technical Skills

**Languages**: Java, Python, JavaScript (ES6+), HTML, CSS, C++, SQL
**Frameworks & Libraries**: Node.js, Express.js, React.js (JSX), Django, jQuery, Knex.js, MongoDB, Socket.io
**Tools and Platforms**: Git, PostgreSQL, qtCreator, RaspberryPi, Arduino IDE, JSON Web Tokens, Postman, Windows, Linux, VirtualBox
**Networking**: Basic networking, cabling, CAT6 cable creation, troubleshooting network devices.