

# Alexander J. Lopez

Flyingmachines164@gmail.com ❖ (715) 203-6986 ❖ [linkedin.com/in/alexander-lopez-j](https://www.linkedin.com/in/alexander-lopez-j) ❖

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## SUMMARY

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I am a first-year software engineering student at the Milwaukee School of Engineering looking to grow my skills with hands on industry experience. My interests are software engineering, automation, web development, robotics, and cyber security.

## SKILLS

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- Java, HTML, CSS, C++, C#, JavaScript, Responsive Web Design, Unity, Ansys Fluent, Fusion 360/CAD, and the Microsoft Mixed Reality API.

## EDUCATION

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### Wausau East Highschool

*International Baccalaureate Diploma*

**2018-2022**

*Wausau, WI*

### Milwaukee School of Engineering

*BS, Software Engineering, GPA: 3.75*

**2022 – Expected 2026**

*Milwaukee, WI*

## PROJECTS

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### Personal Door Assistant for my Dorm Room

- Developed a machine that allows me to unlock my door from a web interface via the internet.
- The machine uses an ESP32 microcontroller to manage commands from the web server and open the door with a spool attached to a stepper motor.

### PLY Sequence File format for Volumetric Video storage

- PLY Sequence is a new file format that holds point cloud videos for the purpose of volumetric video storage.
- This will allow us to record 3-dimensional footage for applications ranging from metaverse presentations, virtual reality tutorials, and telepresence.
- Co-Developed programs to convert PLY files into PLYS files as well as read and render PLYS files in Unity.

### Personal CV Website

- I built a website to host information about my personal projects as I improve my skills.
- Website can be found at: <https://alex-j-lopez.github.io>
- The project uses HTML, CSS, and JavaScript

### House roaming Lego Robot

- Created a custom object detection and avoidance program that allowed the robot to roam my house indefinitely.

### VR Photogrammetry Scan Viewer

- VR application built in Unity that allows me to view 3d scans I created from photogrammetry.

## WORK EXPERIENCE

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### Self Employed

*Software Consultant*

**June 2018 - 2021**

*Schofield, WI*

- Worked with L & S Electric, INC. as an independent contractor to build several software applications.
- My projects ranged from VR tours of the company's traction motor refurbishment plant to virtual showcases for products and project sites.
- I also worked on custom software installers.

### Aqua Finance, INC.

*Debt Collections Dialer 2*

**July 2020 - January 2022**

*Schofield, WI*

- I worked as a debt collections dialer calling customers who were past due on their loan payments.
- I frequently rose to the top three performing employees in my department by employing new collections tactics.
- I assisted in the training of new employees.

### Condor Coffee Company

*Cashier and Barista*

**2017 – 2020**

*Wausau, WI*

- Working as a cashier and barista allowed me to grow my skills in managing multitudes of information streams in a fast-paced environment.
- Customer satisfaction was crucial; therefore, it was important for me to operate in the most efficient and effective possible way to ensure the product was delivered in a timely manner.