

# Joshua Zhu

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## Education

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### University of Maryland, College Park

- B.S. Computer Science
- Minor in Statistics

**Expected May 2027**

## Skills

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**Coding Languages:** Python, Java, C, C++, C#, SQL, JavaScript, HTML, CSS, OCaml, Rust, x86-64 Assembly

**Other:** React, Node.js, AWS, MongoDB, Django, Next.js, Bootstrap, Unity, Git/Github, XAML, MATLAB

**Operating Systems:** Windows, Linux (Ubuntu), MacOS, iOS, Android

### Relevant Coursework

- Advanced Data Structures | Algorithms | Data Science | Computer Systems | Organization of Programming Languages | Discrete Structures | Object-Oriented Programming I & II | Linear Algebra | Multivariable Calculus | Probability Theory

## Experience

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### Software Developer Intern | USDA - APHIS, PGQP

**May 2024 - Aug 2024**

- Built a Django + React web application (Django, React, NodeJS, NextJS, MySQL) that served as a database for over a dozen USDA sweet potato virus test results from the past 20 years
- Worked alongside virologists and other plant biologists to understand features of given data in order to implement software compatibilities and configure efficient deployment

### IT Intern | Montgomery County Department of Housing and Community Affairs

**June 2022 - Aug 2022**

- Analyzed and cleaned data for licenses part of the affordable housing project for over 500 homes in Montgomery County, Maryland
- Upgraded over 50 individual company database devices and trained employees in new software

## Projects

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### ZoomerDetect | Python, AWS

**July 2025 - Aug 2025**

- Created a software from AWS tools and Python that connects and analyzes live video, generating tracking labels for recognized objects
- Achieved over 95% success rate in assessing and identifying entities such as common household items, food items, faces, etc.
- Planning on scaling into more computer vision and machine learning areas and implementing the software into a smart-home device in order to automate specific tasks

### Weightlifting Routine Generator | C#, XAML

**Aug 2024 - Oct 2024**

- Used .NET framework to create software to generate workouts based on common lifting routines and optimized for specific muscle groups
- Built the user interface of a WPL app with XAML and designed intuitive navigation and setup
- Implemented SQLite database for easy and efficient data management

### Employee Storage Manager | JavaScript (NodeJS, ExpressJS), MySQL

**Jan 2022 - Mar 2022**

- Created a program to manage employees and their data in a hypothetical management system with encryption
- Applied both frontend and backend techniques to create a working user interface
- Implemented all major database operations, including create, read, update, and delete