Alan Zhang

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Education

University of Maryland - College Park — Expected May 2025
Bachelor of Science in Computer Science (GPA: 3.7) — *College Park, MD*
- **Relevant Coursework:** Algorithms, Organization of Programming Languages (Ocaml, Python, Ruby, Rust), Object-Oriented Programming (Java), Computer Systems (C), Discrete Structures (Theory)

Technical Skills

Programming Languages: JavaScript, Python, Java, C, C#, Rust, Ocaml
Web Technologies: React.js, Node.js, HTML, CSS, Hooks API
Software and Tools: MATLAB, RStudio, GitHub, Microsoft Office, Excel
Computer Science Concepts: Data Structures, Algorithms, DOM Manipulation, Complexity Analysis, Compiler Design, Operating Systems, Responsive Design, Object-Oriented Programming, Memory Management

Projects

Web Portfolio | **React, JavaScript, Node.js, CSS, HTML** — [Web Portfolio Link](#) | [Github Link](#)
- Crafted an engaging online portfolio to highlight my full stack development projects, demonstrate my technical skill set, and offer a glimpse into my personal life.
- Implemented dynamic routing in a React.js powered single page application to enhance navigation and user experience with efficient, seamless view transitions.
- Utilized advanced JavaScript features to enable interactive elements and enhance functionality.
- Developed a backend for the contact form page using Node.js, enabling efficient message processing and enhancing user interaction. Implemented middleware for form validation and integrated a secure API for email delivery, improving the overall reliability and user experience of the website.

Tic-Tac-Toe | **JavaScript, CSS, HTML,** — [Tic-Tac-Toe Demo](#) | [Github Link](#)
- Developed an interactive Tic-Tac-Toe game using JavaScript, HTML, and CSS with dynamic UI updates and state management.
- Implemented game logic using JavaScript, including advanced features like the minimax algorithm to simulate an intelligent AI opponent, enhancing the challenge as well as engagement level of the game.
- Created modal prompts for player selection and game initiation, improving overall user experience with clean and intuitive navigation.
- Utilized event listeners for game control, including player moves and game reset functionalities.
- Designed and integrated a scoring system to track and display scores dynamically, adding a competitive element to the game.

Teamfight Tactics Web Tracker | **Django, Python, JavaScript, HTML, CSS** — [Github Link](#)
- Collaboratively engineered a dynamic statistics dashboard using Django, integrating it with Riot Games' API to visualize key performance metrics for specific in-game content.
- Pioneered the implementation of an automated data pipeline that ensured hourly updates of game statistics, maintaining the dashboard's relevance and accuracy.
- Implemented advanced features such as real-time user interaction capabilities, auto-sorting, and efficient search functionalities using JavaScript.

Experience

Software Developer Intern — April 2024 – Current
@MindHome — *Remote*
- Worked on updates and enhancements to the company website, leveraging React for web application portions and React Native for mobile optimizations.
- Contributed personal insights and recommendations for leveraging React to enhance aesthetics and functionality of our web application.
- Collaborated closely with a team of interns to develop and refine React application projects, enhancing project outcomes through effective teamwork.
- Gained foundational skills in robotics programming by engaging with Linux and Python, gaining practical experience in developing and testing automated solutions.