Jesse Mack Software Engineer Washington, U.S.A

### TECHNICAL SKILLS

- Languages: PHP, Javascript, Node.js, SQL, Python, JSON, HTML, CSS
- Frameworks: React, Express, Socket.io, MongoDB, Prisma, jQuery, AJAX, tRPC
- Tools: Linux, Git, TypeScript, SASS, Apache, Nginx, CI/CD, REST API, Unit Testing

#### Experience

# • Software Engineer

2019 - Present

Github: Toxocious

Mobile: (253) 441 8734

Email: MackJesseD@gmail.com

- o Improved SQL database query times by 20% by optimizing field indexing
- Developed Python scripts to automate data fetching and database table creation
- o Created an administrator dashboard with PHP, JavaScript, and MySQL to analyze site and user statistics
- $\circ~$  Utilized websockets to implement a live-updating timeline feed
- Improved overall performance by 25% by refactoring existing code
- o Developed a forum with React, Express, and MySQL, supporting threads, posts, and user auth
- Implemented Apache and Nginx configurations to handle server routing
- Utilized unit tests to catch bugs and test code prior to being shipped
- o Created and maintained in-depth documentation of features and installation processes

## PROJECTS

### Fleiya Dashboard

2022

• The go-to resource for anything and everything regarding the online game PokeOne.

Source Code

Node.js, React, TypeScript, Express, Prisma, MongoDB, tRPC

- Implemented a tRPC wrapper with Prisma to provide MongoDB schema TypeScript definitions between the client and server
- Developed a Python script to scrape PokeAPI and update MongoDB clusters with 800+ Pokemon species
- Used Express routing to handle OAuth logic for user authentication, creation, and sign-in
- o Documented in-depth processes for installation and data maintenance

### Pokemon Absolute

2020 - Present

• An online Pokemon RPG with in-depth battling, trading, map exploration, and more. PHP, JavaScript, jQuery, Python, MySQL, SCSS, CI/CD, Apache Source Code

- Utilized Python to scrape data from PokeAPI to fill out the SQL database with 1000+ monster species, 800+ battle attacks, 600+ items, and hundreds of battle abilities
- o Implemented an administrator dashboard to display and manage SQL database entries
- o Utilizes a continuous integration and deployment pipeline to sync the Git repository with the server
- Improved DevSecsOps by implementing a permissions system to manage user access to critical features
- o Developed an open-world map system with server-side validation using Phaser.js
- Engineered an extensive custom battle system based upon object-oriented practices

### Pokemon Absolute Chat System

2020 - Present

• A real-time socket-based chat system used in-game for Pokemon Absolute. TypeScript, Node.js, SQL, Socket.io Source Code

- o Utilizes a websocket to handle chat messages, commands, and user authentication
- Used AES encryption on chat messages before storing them in the SQL database
- Implemented an authentication system to verify each client on initial connection
- o Implemented a system that prevents message spam and handles chat bans