## Jeffrey Hernandez

Jeff-the-dev.com github.com/Jeffreyghj

#### EDUCATION

## Florida International University

Bachelor of Science in Computer Science

Miami, FL Dec. 2019

## Work Experience

Atlantis.fun

Freelance, Remote Oct. 2024 - Jan. 2025

- Full-Stack Engineer
  - o Technologies Used: Nextjs, JavaScript, CSS, HTML, Node, Express.js, Mongoose, Shaden
  - Initialized via fork of older project, updated dependencies, removed unneeded packages, optimized build with SWC.
  - Developed a majority of the site components, layout, and UX while ensuring full responsiveness for mobile platforms.
  - o Leveraged Shaden component library, enabled progressive web app features, compiled and hosted dev build on vercel.
  - Implemented editable User and Group profiles with a vatar image support, text and image posts, and leaderboards.
  - Benchmarked and improved backend queries. Developed posts and watched tokens features from end to end.

Phantasma MMO

Freelance, Remote

Software Engineer - Game Development

Jan. 2024 - Jul. 2024

- o Technologies Used: Unreal Engine 5, Perforce, Blender, Photoshop
- Created a draggable and scalable widget wrapper for managing the position and size of any element on the HUD.
- o Implemented a world mapping system and minimap components for displaying and updating player position.
- Built inventory management system including drag/drop/swap controls with stacking and stack size limits.
- o Added skill leveling, loot drop, and crafting systems along with UI controls for leveling up and crafting items.
- Ensured proper replication and backend persistence of inventory and XP data between client and server authority.

LittleGhosts.io
Full-Stack Engineer

Freelance, Remote

Apr. 2023 - Jan. 2024

- o Technologies Used: React, JavaScript, CSS, HTML, Python, Node, Express.js, Mongoose
- Updated styles across site, refactored components, and added routes to support new project features.
- Expanded 'Inventory' feature to display new assets and cleaned asset metadata to enable filtering and sorting.
- Installed Python 3.10 on node backed to enable use of a library for ranking digital assets based on trait occurrence.
- Designed 'Shop' UI with price filtering and item sorting, enabled purchase of items with various cryptocurrencies.
- Updated user account creation process to include a web3 onboarding step for earning and securing digital assets.

## Ghostswap.Finance Front-End Engineer

Freelance, Remote

Sep. 2022 - Apr. 2023

- o Technologies Used: React, Next.js, Redux, JavaScript, CSS, Tailwind, HTML, Convex, Web3
- Created UI for a decentralized automated market maker with features that utilize Web3 smart contracts.
- Developed a cart system leveraging Redux to maintain state of cart items independent of route changes.
- o Formulated algorithms and built controls for automated price updates, item sorting, and item filtering.
- o Built launchpad feature and pool-builder feature for launching new collections and listing assets in 'pools'.
- Utilized Convex api in order to interact with a smart contract deployed on BnB chain for controlling 'pools'.

# Lifeguard Deep Water Rotation

Aquatica, Orlando, FL

Sep. 2015 - Sep. 2016

• Ensured the safety of park guests within the waterways and managed ride dispatch and operations

## React Online Card Game

Personal Project

Full Stack Engineer

May 2022 - Jul. 2022

o Technologies Used: React, Redux Toolkit, Next.js, Firebase, JavaScript, HTML, CSS

- Refactored multilevel component prop chains into reactive store slices using reducers via Redux Toolkit.
- Reduced complexity of component code by creating and utilizing custom hooks to decouple business logic.
- o Migrated create-react-app to Next.js project for leveraging API routes in order to secure API request credentials.
- Implemented authentication with Firebase to allow users to persist individual account details.

## Spring Boot User Authentication Web App

Personal Project

Dec. 2021 - Jan. 2022

Full Stack Engineer

- o Technologies Used: Java, Spring Boot, Thymeleaf, HTML, CSS, Bootstrap5, SQL
- Designed SQL database tables to store registered User entities and enabled persistence of database between sessions.
- Configured web security policies and developed custom validation procedures to allow for secure user authentication.
- Exposed REST endpoints providing standard C.R.U.D operations for User database entities via HTTP requests.
- Developed MVC views using the Thymeleaf tag library to leverage Spring security and form data binding features.

#### Voice-Controlled Virtual Reality App

 $Software\ Engineer$ 

Course: Senior Project

Aug. 2019 - Dec. 2019

- $\circ\,$  Technologies Used: C#, Java, Unity 3D, Android Studio
- Architected and implemented a multi-platform VR/360 video player for Windows, Android, and iOS using Unity 3D.
- Ensured on-time feature delivery by following Agile practices and holding regular Scrum meetings.
- $\circ \ \ \text{Implemented speech recognition, VR display settings, file loading, playback control, and corresponding UI elements.}$
- Tested and developed Java plugin for Android native file-selection interface using an emulated mobile environment.

## Text Processing and Drawing Applications

 $Front ext{-}End\ Engineer$ 

Course: Advanced Windows Programming

Aug. 2019 - Dec. 2019

- $\circ$  Technologies Used: C#, Windows Forms .NET
- o Collaborated with multiple small teams remotely over 2-week sprints via Slack and shared Git repositories.
- Implemented responsive text wrapping, text dragging, and data binding tokenized strings to UI controls.
- o Designed features and UI to make user-drawn shapes' properties editable via a separate menu.
- Enabled multi-SDI and single-instance interfaces and built controls for multi-window navigation and management.
- Handled serialization of text and shape properties to be saved and loaded as a custom file type.

### Multi-Process Matrix Multiplier

Backend Engineer

Course: Parallel Computing

Apr. 2019

- Technologies Used: C, OpenMPI
- Developed matrix multiplication program that shares work using a number of parallel processes specified by the user.
- o Decomposed matrix data dynamically into horizontal rows determined by the user-specified number of processes.
- Maximized efficiency by distributing rows evenly between processes in order to solve sub-problems concurrently.
- Prevented race conditions and deadlock by organizing the flow of critical data between processes.

#### Automated RuneScape Botting Farm

Personal Project

Backend Engineer

Aug. 2017 - April 2020

- $\circ\,$  Technologies Used: Java, AWS, VNC, SSH, PowerBot, RSPeer
- Authored libraries of scripts and utilities to automate gameplay for the MMORPG "Old School Runescape".
- Contributed to an open-source repository available for public use following a rigorous approval process by admins.
- Established scalability, ensured efficiency, and enabled remote access via SSH and VNC by deploying on AWS server.
- o Maintained quality and usability by adding and changing features based on user requests and game updates.
- Evaluated advantages relating to efficiency, simplicity, and detectability for multiple botting clients and APIs.

## SKILLS

Languages: Java, JavaScript, C#, C, HTML, CSS, SQL, XML, Python, F#, Assembly, MIPS

**Technologies**: React, Redux, Next.js, Spring Framework, Spring Boot, Vue.js, Amazon Web Services (AWS), npm, Maven, Bootstrap, Thymeleaf, MVC, REST, C.R.U.D, .NET Framework, Unity 3D, Eclipse, Visual Studio, Android Studio, Microsoft Azure, Azure DevOps, CI/CD, Git, Kubernetes, Unix, Linux, Windows

Relevant Coursework: Agile/Scrum, Cloud Computing, Operating Systems, Computer Networking, Security, Computer Architecture, Algorithms, Multi-threaded Programming, Multi-process Programming