

## Employment

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### Software Engineer

- **Rhythm Game (Start, Proto, Alpha) | C#, Unity, UniRX, DOTween**
  - Designed and implemented the input system, event manager, and score manager to calculate and broadcast information about score, tap timing, and other core game functionality.
  - Designed and built the song layout functionality to visually represent a song's Json data.
  - Adapted a Midi to Json converter which translated song files from the audio team into game-usable data.
- **Mobile Suit Gundam | C#, Unity, UniRX, DOTween**
  - Built and implemented both complex in-game calculations and UI for PVP and user-deck related scenes including ranking, battle results, and deck edit menus.
  - Refactored and streamlined bloated models and presenters (**MVP Pattern**) to make them reusable and maintainable.
- **Otakon (and sibling sites) | Ruby on Rails, JQuery, PostgreSQL**
  - Designed and built a responsive, mobile friendly version of the admin dashboard
  - Reduced the loading time of a heavy admin page by over 30s by identifying slow **SQL** queries then restructuring database tables and restructuring client-side **JavaScript**.
  - Wrote a script to convert user IDs and profile picture file names to random slugs to hide backend data from other users

## Personal Projects

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- **Locality sensitive hashing (in progress) | Rust, Redis**  
*github.com/JesseLeung97/lsh*
  - An implementation of **locality sensitive hashing** to determine a selection of well fitting matches for Otakon users.
- **gatsbycsstypes | TypeScript, NodeJS, npm**  
*github.com/JesseLeung97/gatsbycsstypes*
  - An **npm** package to continuously find, parse, then generate **TypeScript** definition files for **CSS Modules** when using **Gatsby JS**.
- **endureandsurvive.io | Preact, TypeScript, Vite, AWS**  
*github.com/JesseLeung97/tlou-countdown*
  - An animated countdown to The Last of Us Part I with a filterable collection of preorder links hosted on **AWS S3** with **Cloudfront**.

## Education

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Amherst, MA	University of Massachusetts Amherst	Sep. 2016 – Jun. 2020
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- B.S. in Mathematics with a concentration in computational mathematics
- Minor in Japanese
- Member of the Commonwealth Honors College

## Technical Skills

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- **Languages:** C#, TypeScript, JavaScript, Ruby, Rust, HTML, CSS
- **Frameworks:** React, Preact, Unity, NodeJS, Ruby on Rails, Gatsby
- **Tooling:** UniRX, DOTween, AWS, JQuery, Webpack, Vite, Jest
- **Databases:** PostgreSQL, FireBase
- **Other:** Sketch, Figma