Eric **Zhu**

🔗 **https://ezhu.build**   ✉ **ericz2241@gmail.com**

📱 +1 647-561-8109   📍 Toronto/Boston

Education

- University of Toronto (UofT)   September 2018 - June 2023
  - Honours Bachelor of Science, double major in Computer Science/Statistics
  - Admitted as UofT Scholar - awarded to top ~4.5% of incoming class
  - Check "university" on my website for a list of relevant coursework and description of courses

Experience

- Advanced Micro Devices (AMD) | Toronto (Markham), ON • PEY Intern   May 2021 - May 2022
  - Language Runtime Team of Machine Leaning SW Engineering Unit
  - Novel language features for **HIP-Compute** (analogous to CUDA), and independent infrastructure projects for HIP.

- Watchtower Robotics | Boston, MA • CS R&D Intern   May 2019 - August 2019
  - Created and implemented procedure involving an **unsupervised label generation process** and **custom CNN**, synthesizing proprietary robot data with feature engineered audio data to predict to label pipe features, e.g., joints, with **90%+ test set accuracy**. **The procedure cut data analysis time by 50% and got AI VC firm attention (Innospark)**.
  - Developed procedure involving video stitching and tag detection for aerial valve marking.
  - Created various **visualization tools/graphics**, and a software guide for investors and my work.

Selected Projects

- Equator Music (link)
(YouTube Music Player)   June 2017 - Oct. 2017
  - Leveraged Visual Studio Team Services for creating an agile workflow.
  - Created the UI following my concept design, using various custom effects implemented in .NET's C# API. Properly utilized Google's RESTful API.
  - Developed a responsive product website and an innovative adversiting strategy a $0 budget, which garnered over a thousand users.

- uDocumentGen (link)   May 2019 - July 2019
(uDocuGen2)
  - A **fast**, **modern**, and **easy to use** documentation generator released on the Unity Assetstore.
  - Utilized **C# backend** to intelligently scrape complex project code/documentation into a JSON file.
  - Utilized **React.js**, styled components, and various components/libraries to create a responsive front end.

- Worker Compenstation Kaggle (link)   Feb. 2021
  - Participated in a workers claims Kaggle competition, **placing 31/140 (top 25%)**. But treated this as a learning experience.
  - Created a flexible workflow for rapidly tuning hyperparameters and tweaking model ensembles
  - Implemented various tree-based algorithms, autoencoders, and learned about/incorporated tips about texual data from a fellow competitor.

- ASA Datafest UofT 2021 (link)   May 2021
  - Analysed 2019 drug use/misuse data in the US, and won **"Best Visualization"**, one of two prizes.
  - Used logistic models to analyse the probabilities of drug misuse across drug categories with respect to income "level". Further analysed which types of drug survey questions were more clearly associated with drug misuse.
  - Created well formatted slide deck/formal writeup.

Skills

Languages — **Java, C#, Python, PostgreSQL, R, Stan, C, JavaScript, CSS/CSS3, JSX, ES6, JQuery**

Tools/Frameworks — **Figma, Sketch, Adobe CC, React.js, Scipy, Keras, Sklearn, Tidyverse , .NET, Git, Bootstrap cmdstanr, rstanarm, lme4**

Principles — **Responsive UI, UX design, OOP, Descriptive/Inferential Statistics, ML theory, Agile Development**