

# Jofred Cayabyab

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## Education

### University of Calgary

Sep 2017 – May 2022

- Bachelor of Science in Software Engineering

GPA: 3.95/4

**Relevant Coursework:** Data Structures and Algorithms, Principles of Software Development (OOP), Computer Organization (Assembly), Software Architecture and Design Patterns, Operating Systems, Database Design, Software Performance Evaluation

## Experience

### Amazon Software Development Engineer Intern

July 2021 – Present

- Streamlined customer UX by implementing contextual enhancements to Smart Alerts, to be deployed to **>3 million users**
- Reduced Alexa Guard Alert device-related false positives by up to **90%** by implementing an event-driven device status querying system
- Created detailed design document, development guide, and workflow diagrams ensuring knowledge transfer for new and existing team members to maintain and build upon project

### Replicon Software Developer Intern

Sep 2020 – July 2021

- Increased automated development environment deployment speed by up to **10x** by refactoring deployer service to automatically instantiate ECS tasks as needed
- Accelerated future development speed by up to **2x** on Ember.js repo by refactoring legacy code to follow current best practices
- Increased CI/CD pipeline stability and configuration flexibility by refactoring pipelines from Elastic Beanstalk to ECS Fargate
- Improved customer experience and customizability in Polaris application by implementing custom tagging and filtering on human resource requests through React and GraphQL

### Code the Change YYC Director of Technology & Project Lead

Nov 2019 – Present

- Led a team of 5 students to develop a language model for the YWCA to classify critical incident reports
- Achieved **>70%** test classification accuracy on a language server for intelligent autocomplete and client risk assessment using FastAPI and SK-Learn
- Improved at-risk client response time by **~200%** by implementing NLP-based automated risk assessment and alerting procedure

### Encana Student System Analyst

May 2019 – Aug 2019

- Saved **30 hours per month** of repetitive data-entry work by automating administrative processes using UiPath and FME
- Eliminated invoice processing error rates by **99%** by writing an invoice parsing RPA in UiPath
- Streamlined asset management by creating interactive report generation software with Oracle PL/SQL scripts

### Student Organization for Aerospace Research Software Developer

Sep 2018 – May 2019

- Implemented automatic parachute deployment by programming sensors and equipment on STM32 microcontrollers
- Reduced failure rates by **50%** by designing a malformed packet recovery system using a byte-stuffing algorithm in C
- Improved testing and debugging workflow of avionics software by developing a ground system signal simulator in Python

## Projects

### YWCA NLP Report Classifier [github.com/Code-the-Change-YYC/YW-NLP-Report-Classifer](https://github.com/Code-the-Change-YYC/YW-NLP-Report-Classifer)

Mar 2020 – June 2021

- Custom critical incident report completion process with intelligent ML-based autocomplete and automatic risk assessment
- Currently used by the YWCA for internal critical incident reporting and monitoring

### VimRace [vimrace.com](https://vimrace.com)

May 2020 – Sep 2020

- Multiplayer browser game with React and socket.io where users can race against each other in a browser-integrated Vim terminal
- Over **500** unique users since initial deployment

### datespot [datespot.surge.sh](https://datespot.surge.sh)

Nov 2018

- Built a map-based website to recommend nearby date ideas
- Designed a date location recommender algorithm using Google Maps API

## Skills

**Languages:** JavaScript, Python, Java, C++, C, Terraform, SQL, HTML, CSS, VB.NET, MATLAB, Bash

**Tools and Technologies:** React, Redux, Node.js, Express, MySQL, PostgreSQL, NumPy, Pandas, SK-Learn, Flask, FastAPI, Oracle, socket.io, MongoDB, UiPath, Git, AWS, Ember.js, GraphQL, Terraform