# Emma Cline

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### EDUCATION

University of WashingtonSeattle, WABachelor of Science in Informatics, Minor in Mathematics2011 - 2014

DigiPen Institute of Technology

Towards overall degree at University of Washington

Bellevue College
Towards overall degree at University of Washington

Bellevue, WA
2008 - 2011

EXPERIENCE

# Freelance Software Engineer

<u>Self-Employed</u> Remote

- TypeScript Discord bots configured by JSON to manage large servers with high performance
- Providing proof of concept code for several University of Washington research projects
- Computer Science tutoring for college students
- Teaching workshops on modern web development

# Lead Senior Software Engineer II

Jul 2018 – Jul 2020

Aug 2020 – Present

Redmond, WA 2009 - 2011

<u>Humble Bundle</u> Remote

- Promoted from Senior Software Engineer to Lead Senior Software Engineer II over the course of my employment
- Lead the platform team focused on site reliability engineering
- Worked with product to define a plan to optimize the user funnel for our monthly product
- Lead the internationalization project for an 8-year-old application with minimal prior internationalization efforts
- Integrated an OAuth login system for Facebook and Google into our existing user system
- Planned a project to migrate all sessions to the newly required email or TOTP two-factor system
- Helped define standards for representing DateTimes, Money, and Percents in Python and JavaScript

## Lead Full Stack Software Engineer

Jan 2018 – Aug 2018

Committee for Children

Seattle, WA

- Lead replacement of a legacy monolithic DNN platform over to using React and .NET Core
- Migrated user authentication to the IdentityServer4 OpenID identity provider
- Incrementally rewrote a series of untested stored procedures into a modern C# WebAPI

## Full Stack Software Engineer

 $Jul \ 2013 - Dec \ 2017$ 

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Remote

- Remote software development team where developers write unit and integration tests
- Constructed an on demand insurance platform for consumer items with C# and SQL
- Developed an app for managing claims and insuring items with React and Angular.js
- Built a business intelligence system for sending information to our partners using Python

### Application Researcher

Jan 2013 - Nov 2013

 $University\ of\ Washington$ 

Seattle, WA

- Lead developer for a JavaScript library which abstracted cloud drive APIs like Dropbox and Google Drive
- Taught staff and students to use and contribute to the library

# Software Engineer Intern

Sept 2012 – May 2013

E\*Trade

Seattle, WA

- Developed Java stock trading apps with an international team
- Worked on features focused on high-frequency trading and options

## Web Instructor and Engineer

Jan 2012 - Jun 2013

University of Washington

Seattle, WA

- Taught modern web development standards to UW staff and students
- Developed Python Django applications to manage courses and support tickets

# Software Engineer Intern

Rakuten

Apr 2012 – Nov 2012

Seattle, WA

- Scraped and normalized product information using Python
- Worked with Overstock, Amazon, and Walmart APIs to gather product information and update listings

## Software Engineer Intern

Apr 2011 – Nov 2011

 $\underline{SmiteWorks}$ 

Bellevue, WA

• Worked on the FantasyGrounds chat feature using C

- Lead the development of a C app to import character data from competitors apps
- Worked with the Steam gaming app store to publish updates and respond to customer feedback

## Projects

Personal Website | TypeScript, Next.JS, TailwindCSS, Docker, Node.js, MDX, React

- Next.JS powered blog, resume, and link shortener website powering my portfolio
- Hybrid static and server rendering model for initial load performance that switches to client side rendering
- Blog using MDX files for easy maintenance and richly formatted posts

Discord Management Bot | TypeScript, Node.JS, Docker, Discord.js, eslint, prettier

- Discord bots written in TypeScript for Node.JS to manage administrative functions of a feature
- Scales to any size of discord server and can be deployed via Docker on any cloud platform
- Bots are broken up by function to enable isolated permissions instead of the monolithic administrative function
- Configured with JSON and allows for separate testing and production discord
- Code is broken up into highly reusable modules that can be pulled into any TypeScript project for customization

ShareTube | TypeScript, Node.JS, Docker, React, eslint, prettier

- Sharing a redundantly uploaded video across several video services
- JSON configuration of video that can be loaded via url or as a query param
- $\bullet\,$  Unique chat rooms for each JSON configuration video

**GPT-2 API** | Python, Starlette, GPT-2, Tensorflow, Docker, Kubernetes

• API that allows requests against any GPT-2 model

<u>dstruct</u> | TypeScript, Grunt, Docker, Bower, Karma

- Data Structures and Algorithms for TypeScript
- Based on Java and C# Collections, and Google Guava

FlightSearcher | C#, ASP.NET MVC, TypeScript, React, Redux, Webpack

• An application to search for flights based on airports and datetimes

 $\underline{\mathbf{CheckOut}} \mid C\#, \ ASP.NET \ MVC, \ Docker$ 

• An API to manage a store inventory and allow customers to checkout items

Autocomplete Comparison | TypeScript, React, Redux, React Native, C#, Blazor

- An implementation of a search autocomplete similar Google
- Comparing React Native, React Redux, and Blazor

### Technical Skills

Languages: TypeScript, JavaScript, C#, Python, HTML, CSS, SQL, C, Bash

Frameworks: Next.JS, React, Vue.js, Flask, Starlette, ASP.NET MVC

Libraries: TailwindCSS, PostCSS, pandas, NumPy, TensorFlow, ASP.NET MVC

Databases: PostgreSQL, MSSQL, MySQL, Elasticsearch

Cloud Providers: AWS, GCE, Azure, Vercel, DigtalOcean, Cloudflare (workers, CDN, DNS), Akamai

Developer Tools: VSCode, Visual Studio, Git, Docker, Kubernetes, yarn, npm, webpack, ESLint, Prettier, cmake, gcc