Edwin Zhang

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EXPERIENCE

Shopify Software Developer Intern · Predictive Search   *Jan - Apr 2019*

- Built and shipped Shopify's first predictive search API for product suggestions with Rails and Elasticsearch
- Optimized abstract syntax trees for queries and designed scalable Elasticsearch indices to handle search requests
- Integrated caching and throttling using the leaky bucket algorithm and introduced data tracking for ETL pipelines
- Developed new features including fuzzy search and an Elasticsearch test framework to reduce runtimes by 50%

Epoch Software Developer · Full-stack   *May 2018 - Apr 2019*

- Designed, built, and scaled enterprise software platform for curating employee experiences from the ground up
- Built the GraphQL API, authentication flow, and caching with Flask and Redis to lower average response times by 3x
- Created Figma mockups and implemented entire frontend redesign using React and Apollo alongside new features
- Set up Docker containers for production and development builds and CI pipelines for testing and deployment

Localintel Software Engineering Intern · Full-stack   *May - Aug 2018*

- Developed data pipelines using Python to reduce manual data entry by 80% and automate aggregation of open data
- Created PDF report builder with web accessibility compliance and frontend regression test utility using C# and .NET

RESEARCH

UW ECE Machine Learning Lab Research Assistant · Digital Pathology   *May - Aug 2019*

- Developed machine learning pipeline and tooling with TensorFlow and Keras to classify digital pathology datasets
- Implemented and trained convolutional neural network architectures to achieve over 97% classification accuracy

University of Waterloo Research Assistant · Haptic Rendering   *Sept - Dec 2018*

- Created sandbox environment using Java to procedurally generate haptic texture forces on an Arduino
- Researched haptic rendering algorithms detailed in modern research papers and drafted report on findings

PROJECTS

UW Flow Software Developer   *May 2019 - Present*

- Built frontend interfaces with React and Apollo for course planning platform used by 30k+ students
- Developed custom client-side search engine with filtering and autocomplete, authentication flows, and animations

EDUCATION

University of Waterloo Bachelor of Software Engineering   *84% Average · 2017 - 2022*

SKILLS

Languages · Python, JavaScript, C++, Java, Ruby, Scala, Go, C#

Frameworks/Tools · React, Flask, Rails, Node.js, GraphQL, TensorFlow, Keras, PyTorch, Elasticsearch, Docker, Redis