

# Victor Kobayashi

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## Skills

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**Languages:** Python, NodeJS, TypeScript, Go, C++, C, Java, Bash, Scheme  
**Frameworks:** PyTorch, Keras, Flask, React, SQL, Git, AWS, Travis-CI, Docker, Kubernetes

## Experience

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### Machine Learning Engineer | Zynga

Jan - Apr 2021

- Efficiently streamed event data into **AWS Kinesis** by integrating **fluent-bit** into project microservices
- Provisioned and automated microservice deployments to **EKS** development clusters
- Designed a dynamic event filter to process event data based on real time adjustable filtering criteria
- Maintained and monitored RL pipeline to ensure optimal delivery of over **5000** push notifications per day

### Machine Learning Engineer | PerkinElmer

May - Aug 2020

- Investigated machine learning pipeline for bottlenecks and cut down training time by **37%**
- Researched **GAN** evaluation metrics and designed a **PCA** based metric to assess synthetic data quality
- Introduced test driven development to the AI Research Team and built out an automated unit testing suite
- Conducted research and proposed the use of **Cramer GANs** for synthetic data generation
- Created an image augmentation module to boost image masking performance in low performing areas

### Software Developer | ROSS Intelligence

Sep - Dec 2019

- Trained **SpaCy** model to detect citations in legal cases at a higher accuracy than existing models
- Developed sign-up free trials to enable prospective clients to try ROSS while maintaining data privacy
- Built a group discounts feature to encourage solo practitioners to share ROSS with their colleagues
- Created an **AWS Lambda** service to apply event tracking to over **2000** outbound emails per month
- Automated Serverless function deployments with **Travis-CI** to minimize deployment errors

### Software Engineer | Snapcommerce

Jan - Apr 2019

- Boosted application Lighthouse performance score over **400%** by making UI components SSR compatible
- Developed an internal tool with **Flask** to simplify and audit bidding on multiple meta-channels
- Built an interface with **Flask** and **Redis** to enable hotel pricing adjustments without developer assistance
- Created Google ads landing page variants for A/B testing in **React**
- Modernized the A/B testing dashboard and implemented auto-expiring experiments

### Software Developer | TemboSocial

May - Aug 2018

- Converted inline email reports into pdf attachments to enable offline accessibility
- Re-designed numerous parts of the platform to improve the user experience with **React**

## Projects

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### Name That Genre

Dec 2019

- **Embedding + CNN** model that classifies a song's genre based on the song's lyrics
- Model was developed with **Keras** and achieved **F1 scores** of up to **0.79**

### Beat

Jan 2018

- Received the **Best UI/UX Hack** award and ranked in the Top 10 hacks at PennApps Retro
- Designed the UI and contributed to the **Ionic** implementation

## Education

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### University of Waterloo | Cheriton School of Computer Science

(Expected) 2017 - 2022

- Candidate for a Bachelors of Computer Science
- President's Scholarship of Distinction for entrance average of 95+
- Courses: Operating Systems, Algorithms, Cryptography, Statistics, Object Oriented Programming