


JASON KIM

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SUMMARY

- Experience with Python, Javascript, Java, Kafka, Kubernetes, Docker, PostgreSQL, Django, Spring, React.js, Redux
- Interested in distributed systems, cloud architecture, data engineering, and data visualization

EXPERIENCE

- **FORMLABS | SOFTWARE ENGINEERING INTERN** Boston, MA | Sep. 2018 - Aug. 2019
Dashboard Team developing customer-facing printer web dashboard for 50k active users & Formlabs API with 57m+ daily throughput
 - Shipped Formlabs Developer API as containerized service - designed **Django** based REST API, created multi-environment server settings for OAuth 2, rate limit, and memcaching, and configured **Kubernetes** models for pod connections, Ingress, and load balancing
 - Shipped remote print feature for Formlabs API - developed data pipeline between printers, the API, and in-house software services, as well created custom **Python** based **AWS Lambda** operator to automate print job uploads and validations to **AWS S3**
 - Integrated **Kafka** into core web infrastructure - streamlined printer requests into multiple Kafka topics, created core consumer group for data consumption to the API, as well centralized Kafka Connect instance from Kafka to production Amazon RDS database
- **ECOBEE | SOFTWARE ENGINEERING INTERN** Toronto, ON | Jan. - Apr. 2018
Admin Portal Team developing multiple help-desk features for ecobee products; currently in use by 200+ customer support employees
 - Developed advanced filter feature for **ElasticSearch** based search engine, enabling pre-filtered data streams from Kafka clusters to in-house microservices via **Kafka Stream**
 - Integrated OAuth 2 flow between high-traffic microservices and created data pipelines to **AWS S3** via signed URLs in **Java (Spring)**
 - Implemented metrics monitoring system by constructing JMX, Prometheus, and Grafana instances as part of **Docker** containers
- **CHEFHERO | SOFTWARE ENGINEERING INTERN** Toronto, ON | May - Aug. 2017
Product Team developing the company core product
 - Automated user registration by developing interactive sign-up flow in **React.js/Redux** & **Python** API design in **Google App Engine**
 - Overhauled the company landing page using React.js by minifying and componentizing a Jinja based legacy codebase
 - Integrated analytics architecture using Google Analytics, as well a live Intercom chatbot to construct active user feedback pipeline
- **ROGUE WAVE SOFTWARE | SOFTWARE DEVELOPER INTERN** Ottawa, ON | Sep. - Dec. 2016
Core Team developing main functionality of Klocwork, a static code analysis tool for IDEs
 - Built a multi-environment caching feature to improve run-time of **Python** automation test suites by 23%
 - Developed a build to build test failure comparison tool using TestLink API

PROJECTS

- **LOOPLABS** Multi-threaded software for real-time creation of audio loops via MIDI signal triggers from custom loop station pedal (**Python**)
- **EMOTIONTUNES** Web app that generates music playlists based on emotions detected via facial expression recognition (**React.js**, **Emotion API**)
- **MEMORYBOUND** Calendar app with integrated login system and personal reminder feature with multi-threaded notification capabilities (**Java**)

EDUCATION

- **UNIVERSITY OF WATERLOO** Waterloo, ON | Sept. 2015 - Apr. 2021 (Expected)
Candidate for BAsC Mechatronics Engineering
 - President's Academic Scholarship
 - Relevant Courses: Algorithm and Data Structures (**C++**), Real-time Operating Systems (**C**), and Engineering Statistics