

# JASON KIM



## SUMMARY

- Experience with Python, Java, Javascript, 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 used by 100+ 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 secured data pipelines to **AWS S3** via signed URLs in **Java**
  - 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 based 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 test failure per-build comparison tool using TestLink API, currently in use by 20+ employees

## PROJECTS

- **GRAPHQL API** Ecobee hackathon project overhauling legacy RESTful API into GraphQL queries and mutations (**React.js, GraphQL**)
- **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 - Present  
Candidate for BAsC Mechatronics Engineering
  - President's Academic Scholarship
  - Relevant Courses: Algorithm and Data Structures (**C++**), Real-time Operating Systems (**C**), and Engineering Statistics