

# Luke J. Pereira

Software Engineer

<https://linkedin.com/in/lukejp>

lukejoepereira@gmail.com (705) 305-4057

## Employment

---

### Amazon

Software Development Engineer

March 2021 to present

### BenchSci

Full Stack Software Engineer

July 2017 - December 2019

<https://www.benchsci.com>

- Developed a React web app along with Python and Node APIs for a reagent search engine used by thousands of scientists at the top 20 pharmaceutical companies in the world
- Developed SOC2 compliant integrations and performed acceptance testing with enterprise clients; including SAML SSO, Ariba procurement checkouts, and multi-factor authentication
- Rewrote the core Elasticsearch API, increasing performance by upwards of 10x, improving test coverage and code maintainability. Integrated API with ML and bioinformatics big data pipeline
- Developed ecommerce APIs, payment flow UIs, and drop-shipping automation tools via SMTP

### Contract and Freelance

January 2012 to present

- Created Kubernetes deployments and GCP compute infrastructure for an alpha stage startup. Used machine-specific auto-scaling & auto-provisioning to remain cost efficient while minimizing latency
- Developed C++ software for secure and robust radio frequency communication between two Arduino microprocessors. Currently used to detect malfunctions in hydraulic lifts: <https://git.io/Jkmmw>

## Education

---

### Honours Bachelor of Science

Computer Science and Mathematics Double Major  
University of Toronto

September 2015 - April 2020

Final Year GPA: 3.75

## Projects

---

### CloudFund

<https://github.com/lukepereira/cloudfund>

A React app with a Flask API used for crowdfunding and maintaining cloud resources and deployments. Using Stripe to process funds, Kubernetes to manage clusters and deployments, and the GitHub API for deployment and configuration versioning.

### TF Classify

<https://ply.gl/org.tensorflow.app>

An Android app that uses Googles Inception model to classify camera frames in real-time. Built from open-source code, it has accumulated over 12,000 installs in the Google Play Store.

## Skills

---

### Languages and Frameworks

Python, Golang, Node, C/C++, LISP  
ES6 JS, React, Redux, Sagas, Selectors  
REST, Flask, gRPC, GraphQL  
TensorFlow, Pytorch, scikit-learn, numpy

### Database Technologies

SQL/RDBMS, Elasticsearch, Neo4J, MongoDB

### Cloud & Infrastructure

AWS, GCP, Docker, Kubernetes, Serverless  
Terraform, Ansible, Envoy, OpenCensus

## Notable Courses and Knowledge

L<sup>A</sup>T<sub>E</sub>X: <https://git.io/JfwkR>

- Advanced Data Structures & Algorithms, Neural Networks & Machine Learning, SCRUM & other SDLC, Information Security, Distributed Systems, DevOps, Git, Unix, Performance Analysis, Stochastic Networks & Queuing Theory, Databases, OS & Computer Organization
- Statistics & Probability Theory, Differential Geometry, Combinatorics, Number Theory, Advanced Graph Theory, Multivariable Calculus, Partial Differential Equations, Dynamical Systems, Linear Algebra, Abstract Algebra, Topology, Group Theory