

# TONY KO

Software Engineer II – Web

Toronto, Canada

+1 647 300 9787

tony@tko.dev

github.com/tkudev

linkedin.com/in/tkudev

[www.tko.dev](http://www.tko.dev)

## TO WHOM IT MAY CONCERN

This letter is an application for **Software Development Engineer II** position.

I am a Software Engineer II, with practical experience working with some of Canada's most well-known brands, such as **Aeroplan, Air Miles, and Toyota**. My work is **scalable** (1000's in daily visitors, millions of rows in data, cloud & cluster deployments), **modern** (react, express, typescript, ORMs, etc) and **compliant** (AODA AA, WTAG 2.0, responsive).

In the last **5 years**, I've grown from a junior role to several **project lead roles**. I know what it is like to start from scratch. Thus, I do my best to support **team growth** with not just **code quality**, but with good **documentation**, authentic **peer support** (KT/pair/presentations, 1:1's, etc) and a wide range of **experience** (DevOps, UX design)

In addition, I'm coming from an interdisciplinary **client-facing** background, in Interior Design. I love the intersection between function and user experience and I offer a unique **engineer-designer** perspective that could be valuable to your company.

I hope that by reading my resume, you'll find I am **highly motivated** and **open to learn** and that I am a good fit with your company's goals and culture. If so, I would love to chat more.

Best,

Tony Ko



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## EXPERIENCE

### **Software Engineer II** – Nov 2020 - Present

*Quantum Mob - Toronto, Canada*

- Project lead on several internal tooling projects and Loyalty apps such as Aeroplan Extension.
  - Created and presented guidelines & plan on Design Systems implementations.
  - Lead junior team on AODA AA / WTAG 2.0 implementation
  - Wrote API (swagger), and third party docs for internal and client teams.
  - Created boilerplate & architecture for SSR, PWA and Browser extension apps
  - Performed code reviews & pair support, using public & company code standards.
  - Lead & assisted in interviewing new hires.
- Use of QM's design system to create Figma designs for an architectural employee dashboard
  - Lead project discussions with clients to develop project requirements & expectations

### **Software Engineer** – Nov 2019 - Nov 2020

*Quantum Mob - Toronto, Canada*

- Implemented design systems using Material UI, React, and SSR Next.js.
- Built web applications with AODA AA / WTAG 2.0 requirements
- Managed front end state with SWR hooks and Redux.js / flux like libraries.
- Wrote Next.js & Express backends with user auth with Passport.js & OAuth SSO endpoints
- Designed transactional DB structure with TypeORM
- Write unit and integration test suites with Jest, Nock & React Testing Library

### **Intermediate Front End Developer** – Apr 2017 - Nov 2019

*Brandfire Marketing Group - Toronto, Canada*

- Build Koa/Express Node.js & PHP apps with secure Passport.js user sessions
  - Translate designs into responsive & AODA AA / WTAG 2.0 compliant Vue.js web apps
  - Develop API endpoints and design MySQL database structure
  - Create build pipelines & bundler scripts for CI/CD on AWS, Shopify, and Linux platforms
  - Ensure quality code via Mocha.js Unit and E2E Testing, QA & Scrum.
  - Wrote in-depth documentation to guide future development.
  - Presented lunch and learns on Vue.js with Dev team
- Assisted PM in the breakdown of technical requirements
  - Feature estimation and worked with the team on ticket delegation
  - Wrote white papers & user/data flow diagrams for the team, client and legal

## EDUCATION

### **B.Des – Environmental Design** – 2013 - 2016

*OCAD University – Toronto, Canada - 3 of 4 years*  
Interior, Architectural and Civil Design

### **CSE – Front End Development** – 2016 - 2017

*FreeCodeCamp – Remote*  
CSS / JS, Libraries, Rest API, Algorithms

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## KEY PROJECTS

### Aeroplan EStore – Product Store - Team of 15~

*aeroplan.rewardops.com*

- Spearheaded the design of multilingual monorepo react + express arch, state management and front end JSS framework.
- Mentored a group of 5 juniors on AODA AA compliance.
- Built core components such as Air Canada API integration, redux structure, item listing & search.
- Worked with currency & checkout logic (big integer, Bambora), and indexing logic of item variants.
- Performed code reviews with a focus on maintainability.

Key skills: Redis caching, OAuth user sessions, Redux state, currency logic and data fetch patterns.

### Aeroplan Extension – Browser Extension - Team of 2

*To be released*

- Project lead on an AODA AA compliant multilingual cross-browser extension with react + express.
- Rolled out the use of Rush.js Monorepo design compatible with Typescript & Webpack bundling.
- Implemented Material UI components and built hooks on data fetching proxy, server > worker > client data flow.
- Worked with PO to create agile Epics and Sprints & manage client requirements.
- Work directly with DevOps to optimize scalability, security, release pipelines and server deploys.

Key skills: PWA Service Workers, DOM content injection, CSP and CORS policy

### Air Miles – Landing Page - Team of 50~

*airmiles.ca*

- Front end development in a react component Lerna monorepo + Adobe AEM (java) backend.
- Use SASS & BEM CSS standard to create styles compatible across a 100's of components.
- Work with PO & Team to estimate and implement feature requirements.

Key Skills: Monorepo component library, BEM CSS

### Weiser Lock – Product Catalog - Team of 5

*weiserlock.ca*

- Implemented static site generation from scratch (before SSR was mature), based on express.js, client CSV and an inhouse “Edit On Spot” WYSIWYG CMS
- With the Lead developer, created binary index logic to filter (facets) through thousands of items on the browser.
- Implemented ElasticLunr (SOLR like search) indexing for front end real-time full-text search.

Key Skills: Faceting / Binary Indexing Algorithms, Static Site Generation, In-Browser Search

## RECOMMENDATIONS

Please visit [linkedin.com/in/tkudev](https://linkedin.com/in/tkudev) to see peer recommendations and endorsements