

# Peter Hua

✉ peter.s.hua@gmail.com 📍 Vancouver, Canada 🌐 peterhua.net in petershua

## Experience

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### Software Developer, Creator,

03/2023 – present | Remote

*Tinker* — <https://tinker-base.github.io> 📄

Created an open-source, self-hosted, backend-as-a-service (BaaS) that automates deployment on AWS, with a companion database editor dashboard.

- Published an npm CLI that automates deployment and teardown of AWS infrastructure
- Led the design and implementation of Tinker's AWS infrastructure including networking and security using CloudFormation, VPC, EC2
- Centralized TLS certificate management and HTTPS communication between clients and backend servers by TLS offloading (Route53, ALB)
- Secured Tinker through authentication with JWTs and authorization with PostgreSQL roles
- Engineered automatic provisioning of PostgreSQL and an API layer in EC2 instances using Docker
- Created PostgreSQL RPCs for dashboard SQL queries (DDL and DML)
- Developed a dashboard for manipulating PostgreSQL databases (React, Tailwind)
- Authored a case study on Tinker's problem domain, architecture, challenges, and design decisions

### Controls Engineer, Birket Engineering

2017 – 2021 | US, Japan, China

Designed, programmed, installed, and commissioned software/hardware for clients in theme park attractions enjoyed by millions of annual guests.

- Integrated technologies across audio/video, lighting, show action, animated figures, and special effects, with live performers
- Defended designs to Engineering Safety and government auditors for public opening approval
- Trained 100+ technical staff on system operation, troubleshooting, and maintenance

### Electrical Engineer (Licensed P.Eng), E2 Consulting

2012 – 2017 | Canada

- Designed, programmed, and managed control system projects for clients (up to \$1M)

### Engineer/Developer (Co-op Student), Ericsson, Nokia

2009 – 2011 | Canada

- Created scripts for network traffic tests on edge routers

## Skills

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### Languages & Frameworks

Node.js/Express, Ruby, Go, Sinatra, React, Redux, SQL

### Tools

PostgreSQL, MongoDB, Docker, NGINX, Wireshark, Linux, Git

### Cloud

AWS (CloudFormation, EC2, ALB, S3, VPC, IAM), DigitalOcean (Droplets), Heroku

## Education

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### BASc Electrical Engineering with Distinction,

2007 – 2012

*University of British Columbia*

Electrical/Computer engineering coursework

### Software Engineering, Capstone Program, Launch School

2022 – 2023

Mastery-based curriculum of software engineering fundamentals. [launchschool.com/employers](https://launchschool.com/employers) 📄

### Professional Engineer License, APEGA

2017