

# Peter Hua


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## 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
- Developed RPCs for dashboard SQL queries (DDL and DML)
- Contributed to the dashboard design and development (React, Tailwind)
- Authored a case study on Tinker's problem domain, architecture, challenges, and design decisions

### Controls Engineer

2017 – 2021 | US, Japan, China

*Birket Engineering*

Designed, programmed, installed, and commissioned the software/hardware behind life-safety ride & show control systems in theme park attractions enjoyed by millions of guests annually.

- Integrated technologies across audio/video, lighting, show action equipment, 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 Professional Engineer)

2012 – 2017 | Canada

*Enhanced Engineering (E2) Consulting*

- Designed, programmed, and managed process control automation projects (up to \$1M)

### Engineer/Developer (Co-op Student)

2009 – 2011 | Canada

*Ericsson, Nokia*

- Created test scripts, diagnosed circuit board issues, and ran network traffic tests for edge routers

## Skills

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#### Languages & Frameworks

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

#### Tools

PostgreSQL, MongoDB, Docker, NGINX, Wireshark

#### Cloud

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

## Education

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### BASc Electrical Engineering with Distinction

2007 – 2012

*University of British Columbia*

Electrical/Computer engineering coursework

### Software Engineering, Capstone Program

2022 – 2023

*Launch School*

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