Peter Hua

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Experience

Software Developer, Creator,   Jan 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.

- Published a CLI that deploys 26 AWS components with CloudFormation, reducing steps from ~180 to 9
- Led design of AWS infrastructure for web accessible backends with least privilege access
- Engineered automatic provisioning of NGINX/PostgreSQL/API layer on EC2s using Docker/Compose, eliminating boilerplate CRUD routes
- Centralized TLS cetificates by TLS offloading (Route53, ALB), reducing count from linear growth to constant
- Secured PostgreSQL databases through JWT authentication and role authorization
- Created RPCs enabling dashboard DDL and DML queries
- Developed dashboard for PostgreSQL databases to replace manually writing SQL queries (React/Tailwind)
- Authored technical case study — https://tinker-base.github.io/case-study 🔗

Software Engineer, *Birket Engineering*   Jun 2017 – Dec 2021 | US, Japan, China
Built distributed systems in theme park attractions enjoyed by millions of annual guests.

- Orchestrated and synchronized audio/video, lighting, show action, animated figures, and special effects, with live performers using Ethernet/IP, UDP, and custom protocols
- Transformed log/alarm data from disparate sources into Microsoft SQL Server
- Designed wireframes and developed user interfaces for system control
- Defended designs to Engineering Safety and government auditors for public opening approval
- Investigated and resolved L1-L3 network issues using Wireshark
- Trained 100+ technical staff on operation, troubleshooting, and maintenance

Skills

Langauges & Frameworks (JavaScript, Node.js/Express, Ruby, Go, Sinatra, React, SQL)

Tools (PostgreSQL, Docker, NGINX, Wireshark, Linux, Git)

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

Education

BASc Electrical Engineering with Distinction, *University of British Columbia*
Electrical/Computer engineering coursework

Professional Engineer (P.Eng), *Association of Professional Engineers and Geoscientists of Alberta*