

Peijun Ma

peijun.ma@pm.me | (902)-719-8619 | <https://www.linkedin.com/in/peijun-ma/> | <https://peijun.dev>

Skills

Technology

Expert

I am able to onboard new team members with these technologies:
Scala, Python, Docker, Terraform, Google Cloud Platform, Linux

Proficient

I am able to be immediately productive with these technologies:
Kubernetes, TypeScript, Angular, Java, Jenkins

Familiar

I am able to pick up these technologies relatively quickly:
Haskell, Rust, `Vue.js`, C#, AWS, C

Other

- Architecting software systems using domain-driven and service oriented principles
- Developing continuous deployment workflows to Kubernetes in a production environment
- Administrating Unix-like operating systems, have knowledge of the OSI network model
- Writing technical documentation and producing infrastructure diagrams
- Solid understanding of data structures and algorithms
- Knowledgeable in agile (XP, Kanban, and Scrum)

Experience

Garner Distributed Workflow

Software engineer | November 2018 – Present

- Adopted **GitOps** for continuous deployment using **ArgoCD**, resulting in faster and more consistent software delivery
- Championed **functional programming** with weekly study sessions, making the code-base more maintainable
- Migrated production environment from systemd services on manually managed VMs to **Kubernetes**, decreasing the runtime overhead of the system by 30%
- Developed infrastructure as code project using **Terraform**, ensuring consistency across all environments
- Optimized graph DB result parsing by reducing the runtime complexity from $\mathcal{O}(n^3)$ to $\mathcal{O}(n \log n)$, resulting in a 2000x performance increase

Peijun Ma

peijun.ma@pm.me | (902)-719-8619 | <https://www.linkedin.com/in/peijun-ma/> | <https://peijun.dev>

Projects

Personal website

Open Source project

<https://gitlab.otonokizaka.moe/Umi/peijun.dev>

- Built a personal website using **Vue.js**
- Published the website as a **Docker** image using GitLab CI
- Deployed the website automatically using **GitLab CI**

Cloudflare DDNS

Open Source project

<https://github.com/MaT1g3R/cloudflare-ddns>

- Purposed Cloudflare's DNS service as dynamic DNS using **Terraform**

Office hour scheduler

Open Source project

<https://github.com/office-hour-scheduler/ohs>

- Collaborated with several other developers to build a webapp for scheduling office hours with professors
- Designed the backend using **domain-driven** design principles
- Implemented the backend API using **GraphQL**
- Built the artifact as a Docker image in CI

Option (Python Library)

Open Source project

<https://github.com/MaT1g3R/option>

- Implemented a library to bring Rust-like Optional types to Python
- Integrated automated testing and deployment using Travis CI and codecov
- Published the library automatically to PyPi using the CI pipeline

Chat bot

Open Source project

<https://github.com/MaT1g3R/YasenBaka>

- Created a chat bot serving 1000+ chat rooms at its peak
- Explored asynchronous programming using the **asyncio** library
- Deployed the application using Docker to **AWS**

Music player

Open Source project

<https://github.com/MaT1g3R/musicview>

- Designed a music player that discovers the least played songs for the user
- Created a simple UI using ncurses
- Synchronized between different threads using locks and condition variables

Peijun Ma

peijun.ma@pm.me | (902)-719-8619 | <https://www.linkedin.com/in/peijun-ma/> | <https://peijun.dev>

ext2 file system

Course project, University of Toronto

- Implemented a ext2 file system from scratch using C
- Debugged the program using GDB, valgrind, and CLion
- Experimented with the CMake build system

Education

University of Toronto

September 2016 – April 2021

Bachelor of Science, **Computer Science Specialist**