

Alexander Tu

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Profile

Software Engineer specializing in both frontend and backend development. Experience with all stages of development cycle from setting up project to testing and maintaining project, up to delivering product to customers. Well-versed in numerous programming languages, fast to adapt and learn new things swiftly.

Education

- BS Polish-Japanese Academy of Information Technology**, Computer Science Oct 2019 - Mar 2023
- Top of class, highest obtainable GPA, 5/5.
 - **Courseworks:** Software Foundations, Computer Architecture, Algorithms, Artificial Intelligence, Comparison of Learning Algorithms, Computational Theory.
 - **Primary languages:** Java, C++, Javascript, Python
 - **Thesis:** Educational platform for medical students at University of Warsaw

Experience

- CrowdConsultants - Software Engineer** Remote
Aug 2023 - Jun 2024
- Created and maintained backend APIs
 - Update legacy code, thereby improving overall team productivity.
 - Improve development speed by introducing new technology.
 - Oversee and create Azure DevOps pipelines for CI/CD.
 - Created reusable frontend components.
- Snowflake - Software Engineer, Intern** Warsaw, Poland
Oct 2022 - May 2023
- Rarely required mentor's assist, tasks were similar to senior colleagues.
 - Developing new UI components
 - Update/create APIs for communication with backend, modularize components to increase testability.
 - Participation in project shipment.
 - **Snowvation:** hackathon to pitch new project directions.
- Self employed** Warsaw, Poland
- Free lance, 2020 - 2022
 - Real-time chat app, Taiwan amigo. (discontinued)

Projects

University projects

- Console apps, machine learning, web app, too many to list. Can show if needed.

My website - momipochi.github.io/website/

- Retro style terminal inspired website. Built using Svelte/Typescript.
- Contains collection of projects I have on github.

Lox interpreter - github.com/momipochi/lox-interpreter

- Lox interpreter written in Go and C.
- Planning to write compilers in the future.

Go algorithm practice - github.com/momipochi/go-algorithm-practice

- Practicing algorithm questions from Google resource page and leetcode questions. In Go.

Java algorithm practice - github.com/momipochi/java-algorithm-practice

- Practicing algorithm questions from Google resource page and leetcode questions. In Java.

Go-realtime-chat - github.com/momipochi/go-realtime-chat

- Real time chat built with Go and ReactTS.
- The application uses multi-threading (goroutine) in go to achieve better performance.

Java Spring Project - github.com/momipochi/java-spring-project

- Web application built with Java and ReactTS.
- The application uses REST api architectural structure to intercept requests.
- JDBC, Dependency injection, Inversion of control, Stream.

Taiwan amigo - github.com/momipochi/taiwan_amigo

- Real time video chat web application built with Vue and NestJS.
- Users can connect with random people and talk via voice or chat.
- The connection between two users is achieved by using webRTC, all from scratch without socket.io.

Web scraper - github.com/momipochi/exh

- Fast web scraper application written in Python.
- Organizes scraped data into well structured folders.
- Capable to scraping all types of websites, static and/or dynamic.
- Some web scrapers use Selenium, most use simple json requests for better speed.

Skills

Languages: English (native), Chinese (native), Japanese (n2 or above), Polish (B2)

Programming Languages: C++, Java, C#, JavaScript, Typescript, Go, Rust, Python

Operating Systems: Linux, Mac, Windows

Frameworks/libraries: .NET, Spring, React, React-query (tanstack query), Vue, Svelte, jest, junit, storybook, gin-gonic

Databases: MongoDB, MySQL, Postgresql, sql, nosql

Others: Git, Docker, Azure

Soft skills: Team-work, problem solver, critical thinker, open minded, not afraid to ask questions