Tianyi (Sam) Zhou

https://developersam.com | tz66@cornell.edu | (607)-279-3876

Education

Cornell University
BS in Computer Science
May 2021 | Ithaca, NY
College of Engineering
Dean's List
GPA: 4.168 / 4.3

Links

Personal Website: developersam.com
Blog: blog.developersam.com
GitHub: SamChou19815

CS Courses

OO Design Data Structs Honors
Discrete Structures
Data Structs & Functional Programming
Intro to Analysis of Algorithms
Systems Programming
Programming Languages & Logics
Machine Learning Intelligent Systems
Intro to Compilers
Operating Systems
Intro to Database Systems
Distributed Systems
Formal Verification

Skills

Programming

Over 50000 lines:
TypeScript • Kotlin • Java

Over 10000 lines:
JavaScript • Hacklang • LaTeX

Over 5000 lines:
Python • OCaml • PHP • CSS

Familiar:
Swift • Go • Coq • Bash • MySQL

DevOps

GitHub Actions, Circle CI, Travis CI, Kubernetes

Open Source Contributions

facebook/docusaurus
facebook/pyre-check
facebook/react
flow-typed/flow-typed
pac4j/spark-pac4j

Experience

Facebook | Software Engineer Intern
June 2020 – Aug 2020 | Ithaca, NY (Remote)
- Migrated legacy Java code for Facebook Lite into a new internal framework in Hacklang
- Implemented news feed related internal tools to help engineers debug production issues
- Ported election integrity modules to Facebook Lite, increasing the global coverage by 20%.

Facebook | Software Engineer Intern
May 2019 – Aug 2019 | Menlo Park, CA

- Designed and implemented an alternative build system that speeds up Python dependency building by 10x
- Implemented Python auto-completion for Pyre language service
- Fixed several parsing and type checking bugs in Pyre

Cornell University | Computer Science Teaching Assistant
Feb 2018 – Current | Ithaca, NY

- Held office hours and graded assignments for students.
- Courses: OO Design Data Structs Honors (80+ students), Intro to Analysis of Algorithms (190+ students), Discrete Structures (350+ students).

Projects

samlang | TypeScript, ANTLR4
December 2018 - Present
- An optimizing compiler for my own functional programming language samlang.
- The statically type-checked language supports generics, first-class functions, and type inference, with a Kotlin-like syntax and OCaml-like semantics.
- The CLI includes a language server that powers various VSCode extension features, including type query, auto-completion and auto-formatting.

mini-react | TypeScript
April 2020
- A simplified React runtime with support for `useState` and `useEffect` hooks.
- Built from scratch and taught to members in Cornell Design and Tech Initiative.

TEN | Golang
July 2017 - June 2018
- A board game that extends the tic-tac-toe to 9×9 board, with an AI-powered by Monte-Carlo Tree Search algorithm.
- The AI can achieve super-human performance with 1.5 seconds of thinking time for each move.

Chunk Reader | Java, JavaScript, CSS3, HTML5
September 2017
- A web app built during a Hackathon with over 70 teams and 300 participants.
- The app used NLP to extract crucial information and generate a summary from any given text, with help of Google Cloud Natural Language APIs.
- Prize: Best Use of Google Cloud Platform/Big Data Products.