

Stone Tao - Resume

Nationality: U.S.A | Email: stonezt2019@gmail.com | Website: stonet2000.github.io | GitHub: github.com/StoneT2000

Highlights

- 2x MIT Battlecode **Finalist** (best placing: 1st out of solo competitors, 5th overall out of 600+ competitors)
- Developed a **generalized Artificial Intelligence competition framework** that handles infrastructure for competitions and bots in any programming language, allowing users to run a **scalable and distributed** AI competition with any design they want easily.

Skills

- **Programming Languages:** Typescript, Python, Go, C, C++, Java, PHP, Javascript
- **Frameworks/Engines/Libraries:** Node.js, React, MongoDB, GraphQL, Express.js, Matplotlib, Pandas, TensorFlow, MySQL, LAMP
- **Software:** Docker, Google Cloud, Jupyter Notebook, Git, Adobe Photoshop

Experience

Software Engineering Intern at LaunchDarkly

Jun. 2020 to Sep. 2020 | Oakland, USA

- Part of the full stack team Squad Oinx, worked on feature workflows, semantic patches, and conflict handling to enable state independent scheduling of feature flagging. Used Go for backend and React + Typescript for frontend

Software Engineering Intern at ProtoLab / Design Lab at UCSD

Oct. 2019 to Now | San Diego, USA

- Developing the Design for San Diego platform with Typescript, Firebase, React, Webpack under Dr. Steven Dow

Computer Science Tutor at UCSD

Mar. 2020 to June. 2020 | San Diego, USA

- Working under Dr. Paul Cao to tutor 700+ students in CSE 12: Intro to Basic Data Structures and OO Design
- Interview students weekly, grade programming assignments, help students during lab hours, write Java assignment test cases

Full Stack Developer Intern at TAOS Data

Jun. 2019 to Sep. 2019 | Beijing, China

- Developed a Node.js connector for the company's product, TDengine, a big data platform with 11k+ stars. Created a **C interface** to enable high speed interaction with TDengine with subscription, async, and stream functionality.
- Developed the company website <https://www.taosdata.com>. Integrated Wordpress as a headless CMS, serving up to 18k+ daily users

Projects

Dimensions - Generalized AI Competition Framework (45+ stars) – Apr. 2020 (Repository Link: github.com/stonet2000/dimensions)

- Developed in **Typescript**. Allows users to easily create their own AI competition that allows for **language agnostic** bots to compete. May help facilitate research into general AI and reinforcement learning.
- Provides **Google Cloud** and **MongoDB** integrations to **scale** up a competition in 3 lines of code
- Was used to run UCSD's first ever AI Programming competition. Ran 50,000+ matches per day for just \$2

IgushArray Java/JS – Sep. 2019 (Repository Link: github.com/StoneT2000/IgushArray-Java)

- Developed the first Java and JS implementation of the IgushArray, which has the same time complexities on operations as the ArrayList, including $O(1)$ access time, but with improved insert and removal times of $O(\sqrt{n})$.

Polytomizator – Jun. 2018 (Link: stonet2000.github.io/Polytomizator, Repository Link: github.com/StoneT2000/Polytomizator/)

- Developed a web app that allows users to create low-poly art **in seconds** compared to the hours it takes with Photoshop. Used image filtering, computer vision techniques, and Poisson disk sampling help auto-generate better low-poly art.

Awards

- **MIT Battlecode (AI Competition) Finalist:** 1st out of solo competitors and 5th overall in 2020, 9th overall in 2019, competing against over 600 teams consisting of high school, undergrad, and graduate students
- **IEEE at UCSD Quarterly Projects++ 1st Place:** Collaborated on an IoT themed based farm that auto-irrigates and collects time-series data to present improved user feedback on plant growth, built over one quarter at UCSD - Sep. 2019 to Nov. 2019

Education

Undergraduate: University of California San Diego, San Diego, California, Expected graduation date: Jun. 2023

- B.S. in Computer Science and Cognitive Science with specialization in Machine Learning and Neural Computation; Major GPA: 4.0/4.0
- Courses: Honors Linear Algebra & Honors Calculus sequence, Discrete Math, Neurobiology of Cognition, Research Methods (Cog Sci), Advanced Data Structures, Design and Analysis of Algos, Computer vision, Data Science in Practice
- Activities: ACM at UCSD - Founding President of the AI suborg, working towards fostering an AI community at UCSD through workshops, AI competitions, and out reach. Developed a membership portal for over 1000+ students.

Other

- **Sports:** Competitive fencer. Assistant coach at the La Jolla Fencing Academy.
- **Languages:** Fluent English and Chinese
- **Interests:** Artificial Intelligence, Design, Physics, Mathematics (Primarily combinatorics)

References

Available upon request