

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, Java, C, C++, Go, 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 and semantic patches 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