

KYLE HELLER

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EXPERIENCE

15 JUNE 2020 – 21 AUGUST 2020

TECHNICAL LEAD, STANFORD UNIVERSITY COMPRESSION FORUM

- Led 3-person high-school grad / college undergrad team for three months
- Conducted weekly stand-up meeting to assess progress
- Developed prototype virtual theatre platform for pandemic usage.
- Coauthored research paper upon conclusion of project for publication

SEPTEMBER 2017 – MARCH 2020

NETWORK COMMUNICATION AND VISION LEAD, PENINSULA ROBOTICS

- Built custom, low-latency datagram protocols for vision pipeline
- Reduced existing protocol latencies by approximately 4-5ms
- Collaborated on integrated vision programs for location and targeting discrimination

MAY 2017 – AUGUST 2018

CTO, HATEBOOK

- Acted as CTO for a semi-parody, group-founded startup
- Launched full social media site in approximately four months
- Managed self-written codebase of approx. 8k lines and associated database
- Designed autonomous account validation, post scheduling, and moderation tools

PROJECTS

NEOLOGOS, DISTRIBUTED NEURAL NETWORK DESIGN

- CPU-bound neural network training on a distributed model in ongoing development
- Asynchronous, distributed intelligence library written in C
- Self-written gradient descent optimization algorithms and communication

CHARCRASH, CUSTOM LANGUAGE

- Turing-complete bytecode-based language in ongoing development
- Designed around philosophy of each directive being two characters or less
- Custom-built VM and interpreter written in C

STERLING, SIMPLE 3D PROJECTION ENGINE

- Simple 3D Graphics Engine designed for Blake O'Hare's Crayon language.
- Self-written projection matrix and modular vertex shading system
- Optimized for graphics computation on CPU, with optional z-buffering

EDUCATION

2021 - 2025

B.S. COMPUTER SCIENCE & APPLIED STATISTICS, PURDUE UNIVERSITY

Computer Science Bachelor's with focus in Machine Learning, supplemented with second major in Applied Statistics. Current Dean's List Member. Expected Graduation in 2025.

MAY 2021

DIPLOMA, PALO ALTO HIGH SCHOOL

Graduated with 3.86 Weighted GPA, 35 ACT, 1500 SAT, AP Scholar with Distinction. AP Courses: AP Computer Science A, AP Calculus BC, AP Statistics, AP Physics C, AP English Language and Composition