## Kyle Heller

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kylljoy.github.io

#### **Skills**

- Proficient in C, Java,
   Python
- Familiar with PHP,
   Javascript, C++, Assembly,
   and Basic SQL Queries
- Familiar with Microsoft, OSX, and Arch, Debian, and Fedora Linux

#### **Education**

**B.S. Computer Science, B.S. Applied Statistics** August 2021 - Present

Sophomore, Purdue University; Expected graduation May 2025. Dean's List & Semester Honors for three consecutive semesters.

Cumulative GPA: 3.62

### **Experience**

#### **Technical Lead**

Jun 2020 – Aug 2020

Stanford University Compression Forum

- Organized and led 3-person development team for three months
- Oversaw weekly stand-up meetings, set deadlines and goals
- Developed prototype virtual theater platform for pandemic usage
- Coauthored published research paper upon project conclusion

# **Network Operations and Vision Lead** FRC Peninsula Robotics

Sep 2017 – Mar 2020

- Designed custom, low-latency datagram protocol for distributed computer vision pipeline
- Reduced existing latencies by over 4ms
- Collaborated on vision-driven autonoumous programs.

#### CTO

May 2017 – Aug 2018

#### Disgracebook

- Performed CTO duties for parody-rooted social media "startup"
- Launched feature-complete social media site in approximately four months
- Developed codebase and managed associated database
- Included autonomous account validation, post scheduling, and self-sufficient moderation tools.

## **Projects**

#### **Neologos**

- Neural network library for distributed learning on CPU
- Asynchronous distributed learning library written in C
- Includes self-written gradient descent optimization algorithm

#### CharCrash

 Turing-Complete bytecode language with Custom VM written in C  Based around philosophy that each directive utilizes no more than two characters

#### Sterling

- Simple CPU-based 3D Graphics Engine for Blake O'Hare's Crayon Language.
- Includes self-written projection matrix and modular vertex shading