# Kyle Heller

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#### kyleeheller@gmail.com

#### **Skills**

- Experienced with C, Java, Python
- Proficient in PHP, Javascript, C++
- Proficient with database systems and SQL
- Versed in socket programming and back-end web development
- Experienced with robotics, pneumatic control, and automation programming
- Familiar with Tensorflow and fundamentals of AI/ML
- Microsoft, OSX, and Arch, Debian, and Fedora Linux

#### **Education**

#### **B.S. Computer Science & B.S. Applied Statistics**

Purdue University; Current Junior, Expected Graduation May 2025. Dean's List & Semester Honors for four consecutive semesters. Cumulative GPA: 3.61

### **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

#### **Site Director**

Jun 2023 – Aug 2023

Stem4Kids Summer Camp

- Directed four-person team at one of three locations
- Performed site opening and closing, money management, and curriculum management and creations
- Communicated with parents, clients, and suppliers to ensure smooth operations.

### **Undergraduate Researcher**

May 2023 – Present

Purdue University, EAPS Department

- Contracted by Department of Planetary Sciences to develop computer vision pipeline to assist in current research
- Developed program and associated tools to track and count ion tracks in electron scans of lunar samples.
- Sole developer for novel OpenCV-based computer pipeline, accelerating image processing by over three-thousand percent.

## **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

• Custom transpilation unit **Sterling** 

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