Lucas Phillips

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# SUMMARY OF QUALIFICATIONS

* Thorough grasp of computer science principles through coursework and projects
* Strong Electrical Engineering background through robotics clubs and personal projects
* Strong curiosity and eagerness to learn as demonstrated in Projects
* Programming Languages used: C, C++, Java, Rust

# EDUCATION

**Bachelor of Science in Computer Science** & Minor in Electrical Engineering Expected May 2027

Washington State University, Pullman, WA

Relevant Coursework:

Calculus 2, C/C++, Data Science, Algorithms, Calculus-based Physics 1

SKILLS

C, C++, Java, Rust; strong work ethic as shown in “Other Experience”; computer modeling, Excel, SolidWorks, Autodesk Inventor; technical communication and teamwork

# PROJECTS

**ASCII converter,** Personal group project 2022-2023

* Designed and coded a program to represent input images as a 2D array of ASCII characters
* This project was my contribution to a group game development project. The game ran out of the windows terminal and used graphics consisting of ASCII characters
* Implemented default Java image processing libraries to break input images into pixels, and associated each pixel with an ASCII character
* Programmed user customization for image scaling and varying levels of quality and brightness, allowing for greater flexibility for artists using the program

**Slope-Field Generator,** Personal Solo Project

* Analyzed user inputted equations using the Shunting Yard algorithm to accommodate complicated user prompts involving exponents, logs, and trigonometry.
* Designed using Visual Studio and programmed in Rust, the program created slope vectors for each point along an inputted domain and range, then normalized the vectors to length 1 and drew them to screen.
* Packaged and posted as an executable file to a school-associated forum for the purposes of demonstrating fundamental calculus concepts such as integrals, differential equations, etc.

AWARDS AND EXPERIENCES

**Awards:** First Robotics Competition (FRC) Dean’s list finalist, WSU top scholar, FRC chairman’s award 2x 2022

**Organizations:** Crimson robotics, FRC 4131

**Community Service:** Liberty High School tech support – assisting with typical issues with school computers

# OTHER EXPERIENCE

**Woodcutter/Tree Bagger (Christmas Tree),** Trinity Tree Farm*,* Issaquah, WA Nov 2022 – Jan 2023

* Extremely physically demanding work during the winter months in the mountains
* Succeeded in this role due to strong customer service skills and work ethic in challenging winter conditions for 10 hours per day