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https://github.com/LuxAtrumStudio

Arden Rasmussen

Education

2012–2016 **High school**, *Earl Wooster*, Reno, NV.
Graduated with International Baccalaureate degree with focus in Math, Chemistry, and Physics.

2016–2020 **BS**, *Lewis & Clark*, Portland, OR.
Majoring in Computer Science & Mathematics and Physics. GPA: 3.45

Experience

2016–2016 **IT**, *Lewis & Clark*, Portland, OR.
Working at the resource lab with Adobe suit, and assisting students and professors with computers.

Programming Languages

C++	**Expert**	*10 years*
C	**Expert**	*5 years*
Python	**Intermediate**	*4 years*
Java Script	**(React, Node.js, Express.js, Django)Intermediate**	*3 year*
Database	**MongoDB, MySQL**	*3 years*

Relevant Projects

Lexici I constructed a comparison of 20 different programming languages. I did this by implementing the same algorithm in each of the languages, and thus I was able to compare run time with respect to the source size of the code in order to fairly compare different programming languages. In addition to the data comparison, I have researched the influence tree of the different languages, and written up a description of how each language differs from the rest.

Ray Tracer I programmed a ray tracer implementation in C++, using OpenCL and multi-threading to accelerate the rendering time. I was able to implement reflections, refractions, and the importing of models/materials from several different modeling programs.

Chat Client I programmed a back end and a client side interface for an online message board system. The back end incorporated user authentication, with passwords saved in a salted hash, and the front end implemented rich text rendering, and a system to asynchronously updated messages from the server.

Mathematical I created an interpreted language based on standard mathematical expressions. The expressions are passed through a lexer and parsed into an abstract-syntax-tree. Then the tree is lazy evaluated in order to resolve the final answer to the expression. The language implements arbitrary precision floating point numbers, and all of the standard mathematical functions. The implementation of symbolic differentiation and integration in still in progress.

Programming Tools

Documentation Skilled at creating documentation for source code.

Unit Testing Experienced at creating unit tests

Linux Experienced with eight years using linux operating systems.

GPU Several years of using OpenGL, OpenCL, and some CUDA experience.

Skills

Curious I will work hard until I can understand the task at hand to the best of my ability.

Initiative I take action to find solutions to problems

Focused I am extremely focused on the task at hand until it is completed.

Adaptable I can quickly adapt to working in new teams

References

Name	Email
○ Tom Hertwick	thertweck@unr.edu
○ Bruce Campbell	RBCampbell@washoeschools.net