

# Natalie Letz

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## Education

### University of Oregon

B.S in Computer Science

Graduated March 2020

CS GPA of 3.27

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## Coursework

### Compiler Construction

### Computer Graphics

Scientific Visualization

Computer Architecture

C/C++ & Unix

Operating Systems

Programming Languages

Data Structures

Algorithms

Software Methodology

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## Skills

### Programming

### Languages

C, C++, Java, Python, Bash,

SQL, Assembly Language

### Web

HTML5, Thymeleaf, Spring,

Dreamweaver

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## Other

Adobe Photoshop,

Dreamweaver

Fluent in Spanish, Japanese

Excel, Google Sheets

Plenty Unix & Linux experience

## Work Experience

*Where I've worked in the past*

### Pipeworks Studios | Engineer I

- Developed video games professionally on teams of varying sizes performing various tasks
- Worked on Adventure Academy, a children's MMO, and a yet-unannounced collectible card game
- Experience programming "enterprise software" in C#, Java, HTML, SQL, and JavaScript for all projects I worked with

### IT Management | IT work for the UO Biology Department

- Managed the IT work for the University of Oregon Biology department
  - Oversaw the management of over 100 computers, was responsible for software problems
  - Trained new hires in all responsibilities required of staff
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## Personal Projects

*These projects can be found on my GitHub or personal website*

### Quack Compiler | Compiler for the Quack language

- Fully working compiler written for the Quack programming language
- Developed in C++ using tools such as RE-flex and Bison
- Uses techniques such as lexical analyzing, parsing, and type checking to compile down to C code
- Goes through stages: Source > AST > Type Checking > Code Generation to create an actual, running program

### Pokémon Red Game Engine | An Engine Written in C++

- Started as a project for a Graphics Programming class University of Oregon, developed into something bigger
- Created an entire engine from scratch using C++ and a library called SFML, the engine works generally for Pokémon games
- Won a "Best Project" award for my project from local industry professionals working in game development

### Image Manipulator | Passes images through various filters

- Described by my professor as "poor man's photoshop", it manipulates images in basic ways
- All the manipulations are done programmatically and the program operates through the command line
- Developed in C++ and is highly compartmentalized, organized, object-oriented