

# Josie Thompson

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## Education Experience

**Goal:** To earn a PhD in mathematics

### University of Washington

Seattle, Washington  
Working toward bachelor's  
B.S. in computer science  
B.A. in mathematics

### Tacoma Community College

Tacoma, Washington  
A.S. in electrical engineering

### Tacoma School of the Arts

Tacoma, Washington  
Songwriting and audio recording  
High School Diploma

## Work Experience

### Lab Assistant

University of Washington Herbarium  
September 2019 - December 2019  
<https://github.com/josiest/Flora-Dat>  
[a-Extraction](#)

- Used regular expressions to extract geographical information from text
- Used python to transform text data from pdfs to csv data

### Internationally Certified Tutor

Computer science and mathematics  
July 2018 - August 2019

- Helped students understand new concepts
- Encouraged critical thinking with leading questions

### Supplementary Instruction (SI) Leader

Computer science  
March 2019 - August 2019

- Planned and held SI sessions
- Encouraged collaborative learning
- Facilitated group discussion

## Programming Experience

### Skilled in technologies

- Python, C/C++, Lua

### Hax and mapgen

<https://github.com/josiest/hax>  
<https://github.com/josiest/mapgen>  
Small libraries for working with hexagonal maps

- Implemented algorithms for working with unique mathematical norms in C++
- Wrote well-covered tests
- Wrote clear documentation

### Pygtails Library

<https://pygtails.readthedocs.io/en/latest/>  
Event-handler for Python's Pygame library

- Implemented event-handling interface
- Used Sphinx and reStructuredText to write and compile original tutorials and clear documentation
- Published module to Python Package Index

### 404

<https://github.com/josiest/404>  
Virtual art piece on the concept of Utopia

- Used lua and love2d to create a new media art piece reflecting on the definition of Utopia
- Used mathematical models of electricity and friction to emulate an imagined force

## Extracurricular Activities

### Programming Club

Treasurer  
January 2018 - June 2018

- Presented a lecture on programming languages
- Held decisions on club purchases
- Helped in organizational decisions