

Jackson McCall

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EDUCATION

Washington University in St. Louis

M.S. in Computer Science

B.S. in Computer Science, Computer Science GPA: 4.0

St. Louis, MO

Fall 2024 – Spring 2025

Fall 2022 – Spring 2024

The University of the South: Sewanee

B.S. in Computer Science, Computer Science GPA: 3.76 (degree conferred 2024)

Sewanee, TN

Fall 2018 – Spring 2022

EXPERIENCE

Research and Development Intern

Kitware Inc.

Summer 2024

Minneapolis, MN

- Completed large-scale refactoring of several open-source codebases to comply with new JATIC protocols
- Assisted in refactoring GitLab CI/CD Pipeline into atomic stages to meet new customer requirements
- Wrote new interface [ImageMetric](#) for the nrkt package
- Wrote ImageMetric implementation [SNRImageMetric](#) with corresponding [unit tests](#)
- Participated in the team's SAgE Scrum process

Machine Learning Intern

NSIN - National Security Innovation Network

Summer 2023

Remote

- Collaborated with a team to create an image classification model (>95% accurate) for the Department of Defense

Student Digitization Assistant

WashU West Campus Library

Fall 2022 - Present

St. Louis, MO

- Assisted digital imaging specialists in creating and processing images of library and special collection materials
- Developed Python scripts to assist in optimizing the digitization workflow

Research Assistant

University of the South

Summer 2022

Sewanee, TN

- Contributed to [GridMusic](#), a generative music project, using the Processing programming environment
- Developed a sound and melody [generator](#) using Conway's Game of Life, integrated with *GridMusic*
- Refactored the codebase to run on Processing 4 (Java)

PROJECTS

[Portfolio Website](#)

Fall 2024

- Designed a portfolio website www.thejackmccall.com to better showcase my experience, projects, and ideas

[Base Defense Roguelike Game](#) | *Unreal Engine 5*

Fall 2023

- Developed a 3rd-person 3D base defense roguelike game with a team for the 2023 WashU Hackathon
- Designed the character movement system and melee attack system, also configured appropriate animations

[Perceptron ML Algorithm](#) | *Python*

Spring 2023

- Created and implemented the perceptron machine learning algorithm from scratch
- Implemented batch and sequential training methods, including support for non-linearly separable datasets

[Space Cowboy 2D Platformer Game](#) | *Unity, C#*

Spring 2022

- Collaborated with three friends to create a basic 2D platformer game in Unity
- Designed and implemented the final boss: a cactus with radial-spike attacks that increased in speed

TECHNICAL SKILLS

Languages: C++, Python, C, C#, x86-64 Assembly, Java

Frameworks and Libraries: Unity, Unreal Engine 5, TensorFlow, PyTorch

Tools: Git, GitLab, pytest, CI/CD Pipeline, Docker

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Captain of WashU Green/Red Collegiate Valorant Team

Fall 2022 - Present

Co-Founder and Captain of Sewanee PNG Collegiate League of Legends Team

Fall 2020 - Spring 2022