Gabriel Sison

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Education

University of Washington Seattle **Seattle, WA**

B.S. in Computer Science *Expected Graduation Date: June 2025*

- **Courses:** Object-Oriented Programming, System and Software Tools, Data Structures and Parallelism, The Hardware/Software Interface, Discrete Math/Probability, Deep Learning
- **Awards:** NASA Space Grant Studentship, Martin Family Foundation Honors Scholar

Experience

TakeOnCollege **Seattle, WA**

Data Analyst *Aug 2022 – Present*

- Created a **Python-based** data analysis framework to examine survey data from **280+** college applications from **50+** mentees throughout **2** years for data analytics committee of college mentorship nonprofit
- Identified a **15% higher** college acceptance rate among first-generation/low-income mentees in program compared with national average acceptance rates
- Streamlined organization-wide logistics for **master document**, showing acceptance rates, organization feedback, and student demographics for entire organization since 2021

Java Game Engine **Seattle, WA**

Software Engineer *Sept 2023 – Dec 2023*

- Used **JavaFX** to develop with a team of **10** a versatile game engine in Java, featuring games such as Pacman
- Integrated a **user-interactive** tabular design for game launch, featuring Map Writing and Game Settings tabs, facilitating game property modifications and personalized map creation
- Incorporated **3** sliders for capturing user input, effectively streamlining communication with the game's back-end

Highline College **Des Moines, WA**

Math Tutor *Oct 2021 - June 2023*

- Provided Calculus, Linear Algebra, and Differential Equations tutoring to peers, utilizing multiple teaching methods and techniques from a diverse range of academic sources for **15 - 17.5** hours a week while being a full-time student
- Earned **Level 3** International Tutor Training Program Certificate from CRLA for addressing unique learning requirements and fostering academic growth in school of **14,000+** students from various walks of life

Hackathon Organizer *Dec 2022 - Feb 2023*

- Created **7** Java-based coding prompts and **10** corresponding input/output files, focusing on varied topics including 2D arrays, recursion, file processing, and method calls for competition
- Collaborated in team with **3** other leaders to help handle logistics, food, and room registration, pulling off our schools first ever post-pandemic in-person coding competition atrracting over **25+** participants

University of Washington Nance Lab **Seattle, WA**

Research Participant *June 2022 – Aug 2022*

- Analyzed brain cell images with **data science** and **image processing** using data from the University of Washington Chemical Engineering department for a selective **10**-week summer program
- Learned introductory **Python** (NumPy, Pandas, SciPy, Scikit-Image, SKLearn) and **Data Science** (Image Processing, Data Management, Machine Learning)
- Applied **image processing** and **machine learning** techniques to fluorescent brain cell images from research papers

Personal Projects

Fractal Generator | ***Java, Swing, JFrame***

- Designed **graphical user interface** in Java that processed real-time updates to generate and display fractals up to a recursion depth of **8** layers, resulting in the generation of up to **3280** fractal components
- Implemented an **Observer** design pattern, using components such as **2 sliders** for recursion depth and color opacity, a color menu, and a theme menu for increased interactivity, utilizing JPanel, JFrame, and Swing

Weather Manager | ***Java***

- Set up Weather Manager that processed **CSV** file with **1 million** rows of weather data and applied natural ordering by country, state, city, year, month, and day
- Integrated **binary search** algorithm to increase computational efficiency from **O(n) to O(log n)**, which resulted in a **99 percent** reduced time complexity