

ADAM S. MACFARLANE

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[GitHub: Project Code](#)

SUMMARY

Computer Science student proficient in Java, Python & C++ pursuing the potential of applied artificial intelligence systems to contribute innovative solutions to complex problems. Seeking internship opportunities where I can apply my skills and make an impact.

PROJECTS

Financial Health Advisor – Python, HTML, CSS, JavaScript & Amazon Web Services 2024 - Present

Uses Python, HTML, CSS, JavaScript, AWS Bedrock and AWS Lambda to provide financial feedback and recommendations for users through purposeful prompt engineering of Anthropic's Claude 3.5 model. This project gave me experience with AWS features vital for AI implementation as well as an understanding of front-end development.

AI Image Classification Program - Python 2024 - 2024

Uses PyTorch, Scikit-learn, NumPy and Streamlit to build a computer vision algorithm to classify galaxies based on features from an image and then display the predicted results. This provided me with a strong foundation of computer vision software which I can replicate and improve upon the 86% validation accuracy with further practice.

Blackjack Game - Java 2024 - 2024

Utilizes Java and object-oriented programming concepts such as inheritance, exception handling, polymorphism, and encapsulation to simulate blackjack's flexible rules, all four potential moves, and accurate calculation of winnings. This project reinforced my knowledge of fundamental programming skills useful for numerous programming applications.

WORK EXPERIENCE

AI4 Business Lab Research Group – Computer Vision Researcher (Intern) 2024 - Present

Orchestrating PyTorch, TensorFlow, Mathplotlib and NumPy to implement complex machine learning computer vision algorithms to create a pavement distress recognition system that is performed better than current models. The research skills obtained will allow me to continue to learn and utilize advanced computer vision techniques such as distillation learning which I used to achieve a 3% performance increase on a test model. San Diego, CA

DRD Pools - Lifeguard 2020 - 2023

Monitored and ensured the safety of all patrons at the workplace by practicing proper first-aid, CPR, MD administration, automated external defibrillator operation, and vigilance when on duty. This experience taught me lifesaving skills that could mean the difference between life and death. Ellicott City,

EDUCATION

San Diego State University

Bachelor of Science, Computer Science
Minor in Quantitative Economics

San Diego California

Expected Graduation: May 2027
Dean's List Semester Honors (2 Semesters)
GPA: 3.8

Extracurriculars:

AI4 Business Research Lab
World Computing Organization
- *Director of Projects & Co-Founder*
Club Baseball
Artificial Intelligence Club

Relevant Coursework:

Data Structures & Algorithms
Intro to Java & Intermediate Java
Calculus I & II
Linear Algebra
Microeconomics & Macroeconomics
Discrete math

TECHNICAL CAPABILITIES

Java, Python, C++, SQL, HTML, CSS, JavaScript, Amazon Web Service, Machine Learning, Prompt Engineering Jupyter Notebooks, IntelliJ, PyCharm, VSCode, GitHub & Microsoft Office