

MAGDALENA JONES

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Experience

Software Systems Engineering Intern

June 2023 – Present

Northrop Grumman

Colorado Springs, CO

- Active DoD Secret Clearance
- Worked in an Agile development environment.
- Developed a tool to automatically generate industry-standard document deliverables from system models in Cameo EA. Streamlined document generation process for entire business unit.
- Assisted in development of precise prediction algorithms from large datasets in C++.
- Worked with Model-Based Systems Engineering team to develop structural architecture in SysML and UML.
- Developed tools to accessibly document simulation outputs in an HTML and RST based webpage.
- Created and integrated a GUI using to increase usability and streamline performance analysis for prediction algorithms.
- Presented individual and team work to the IRAD organization's stakeholders, customers, and upper management. Also regularly played a role as a liaison between software subject matter experts and Systems Engineers to ensure system model content accurately reflected SME vision for the system architecture.
- **Skills:** Python, C++, MBSE, Cameo Enterprise Architecture, AFSIM, SysML, UML, Agile/Jira.

Data Science Intern

June 2022 – August 2022

Meta – Facebook App Commerce, FB Marketplace Seller Experience Team

Menlo Park, CA

- Wrote advanced queries to investigate user interaction with and sentiment towards ratings and reviews on the platform. Created pipelines and subsequent dashboards to display and regularly update these findings.
- Ran machine learning models on large databases to make decisions about new features acting as user trust signals.
- Co-hosted a training in the use of the datasets my project was concerned with to allow for the expansion of my team.
- **Skills:** SQL, Tableau, R, Python

Data Visualization/Web Development Research Intern

August 2021 – January 2023

Harvey Mudd College

Claremont, CA

- Studying students in an introductory engineering course and their use of reflection during the engineering design process.
- Developed a webpage (full-stack using React and Firebase) for students to log in to and view their pre-recorded accounts of their past work to facilitate reflection.
- Papers submitted to ASEE (American Society for Engineering Education).
- **Skills:** Python, JavaScript, React.js, HTML/CSS, Research Writing

Education

Harvey Mudd College

Aug. 2020 – May 2024

Bachelor of Science in Computer Science and Mathematics

Claremont, CA

- Humanities concentration in Science, Technology, and Society.

University of Edinburgh

Jan. 2023 – May 2023

Institute for Study Abroad – Butler

Edinburgh, Scotland

Relevant Coursework

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| • Data Structures & Program Dev. | • Reinforcement Learning | • Linear Algebra |
| • Algorithms | • Mathematical Data Science | • Differential Equations |
| • Programming Languages | • Statistical Learning | • Real Analysis |

Projects

MBARI: AR for Remote Submersibles | *Unity, C++, Linux, Computer Vision*

Present

- Spring semester team lead, with responsibilities including overseeing team activities and deliverables, coordinating with university staff/faculty and company liaisons, and maintaining a safe and enjoyable team work environment.
- Working with the Monterey Bay Aquarium Research Institute as a part of the HMC Clinic program to develop augmented reality tech that allows pilots of remote submersibles.
- Developing an XR overlay in Unity to compliment a live feed from stereoscopic cameras on the ROV. Processing data from LCM packets to pipe into the overlay.
- Gaining experience with project management by writing up a statement of work, defining requirements, and going through processes of verification & validation.

Netflix Recommendation Flask App | *Python, Flask, HTML/CSS*

April 2022

- Developed a recommendation system for Netflix movies and TV shows based in a machine learning model using TF-IDF and the public Netflix API.
- Integrated this backend model with a Flask app frontend to display movie recommendations based on a user's input.
- Also queried movie poster APIs to make a visually appealing display (along with some CSS to organize the page content).