Liam Cassidy

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Education

Dartmouth College — Hanover, NH
Bachelor of Engineering in Computer Engineering (Dual-Degree Program) — *June 2023 – June 2026*

Colby College — Waterville, ME
Bachelor of Arts in Computer Science, Minor in Mathematics — *Aug. 2021 – May 2025*

Experience

Data Science Intern — June 2025 – Present
Everstream Analytics — *Remote*
- Developed, maintained, and deployed dockerized Python scripts using BeautifulSoup and Selenium to automate data collection from online news sources, ensuring compliance with terms of service and robots.txt directives
- Performed comprehensive data cleaning and preprocessing to prepare datasets for use with large language models, generating automatic summaries through AWS Lambda

Undergraduate Research Assistant — June 2024 – May 2025
INSITE Lab at Colby College — *Waterville, ME*
- Facilitated development of Swift application with containerized Express.js & React.js server allowing blind and vision-impaired users to navigate indoors with the Boston Dynamics Spot robot
- Designed a local server-based archival tool in MongoDB & React.js to manage and analyze meteorological and ecological data
- Processed months of bird audio recordings using machine learning techniques, including spectral feature extraction and unsupervised clustering, to identify patterns in species activity and behavior

Undergraduate Data Science Intern — Sep. 2023 – Mar. 2024
DIFUSE Project at Dartmouth College — *Hanover, NH*
- Devised exercises and modules for a climate change unit, integrating data science concepts into a Geography course as part of an NSF-funded project
- Shaped lesson plans to integrate a custom tool for visualizing thermodynamics concepts in a Physics course curriculum
- Refined Python-based Jupyter Notebooks using Pandas and Matplotlib for student use, focusing on accessibility, interpretability, and alignment with course outcomes

Undergraduate Smart-Home Technology Researcher — July 2023 – Aug. 2023
Dartmouth College — *Hanover, NH*
- Conducted technical analysis of Matter-enabled smart-home devices, working with a diverse research team to streamline onboarding flows across iOS and Android ecosystems, culminating in a research paper accepted to ACM HotMobile 2024

Projects

Sillybus | *Python, Flask, HTML, CSS, JavaScript* — Oct. 2023
- Led a 4-person team through the full project lifecycle using Scrum methodology during a 24-hour hackathon, building a full-stack web app that integrated the Google Classroom REST API to automate syllabus-to-assignment conversion using OCR and machine learning, while coordinating team efforts to meet competition deadlines

Twitter Analysis of Online Vaccine Discourse | *Twitter API, Python, R* — Jan. 2022 – Aug. 2023
- First Place Winner of the Columbia University 2023 COVID Information Commons Student Paper Challenge
- Collaborated with two classmates to assess Twitter user, post, and hashtag data related to anti-vaccine discourse during the COVID-19 pandemic
- Applied topic modeling and community detection techniques in Python and R to uncover demographic patterns and map user influence across Twitter

Technical Skills

Languages: Java, Python, C/C++, Swift, SQL, JavaScript, HTML/CSS, R, MATLAB, VHDL
Frameworks: Express.js, React.js, Node.js, Flask
Developer Tools: Git, Docker, Singularity, AWS, MongoDB, Jupyter, Linux, VS Code, Eclipse
Libraries: pandas, NumPy, Matplotlib, scikit-learn, BeautifulSoup, Selenium