

Oliver Adams

Portfolio: oliver-adams-b.github.io

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Experienced Data Scientist with over 5 years of expertise in applying advanced data analysis and machine learning to a wide range of problems. Skilled in Python, machine learning, and innovative project development. Eager to leverage my technical skills and problem-solving abilities with a team of excited engineers.

Experience

Choosefinch, Sustainability and ESG product scoring

Remote; Portland, Maine

Data Scientist

June'2022 – April 2024

- Foundational developer on a lean team that built a complex sustainability scoring algorithm that enabled the assessment of millions of products.
- Built infrastructure surrounding our insight platform hosted on Metabase, and routinely conducted statistical analyses on our heterogeneous data using PostgreSQL/Python/Big Query/DBT.
- Developed and optimized an ensemble of machine learning models using PyTorch and FastAI, enhancing prediction accuracy and performance.
- Engineered a robust API deployed on GCP for efficient model inference, facilitating integration with external applications.
- Designed and implemented pipelines for model assessment, retraining, and hyperparameter tuning, ensuring models adapt to new data and maintain high accuracy.
- Collaborated closely with leadership to align development efforts with the company's strategic vision, prioritizing rapid innovation and adaptive learning to navigate resource constraints.

Ushur, AI-driven customer service automation

REMOTE; PORTLAND, MAINE

Data Science Intern

Jan' 2021 – Aug' 2021

- Engineered and implemented computer vision models to automate the processing of insurance documents in an unsupervised manner. These deployed models streamlined document handling workflows.
- Collaborated intensively with an international engineering team to refine the insurance data processing pipeline, enhancing the system's overall accuracy and efficiency.
- Developed and conducted rigorous testing of algorithms for key-value pair extraction from complex documents, achieving a marked reduction in false positives and substantially boosting accuracy in data extraction.

Earth Species Project, Decoding animal communication research

REMOTE; PORTLAND, MAINE

Volunteer Open Source Collaborator

Aug' 2020 – Dec' 2020

- Adapted research-grade language and vision models to translate Egyptian fruit bat noises into English using PyTorch and FastAI on Google Cloud Platform's AI Platform.
- Engineered a novel model architecture, significantly improving benchmark classification tasks with a 10% boost in accuracy (from 60% to 70%). This work contributed greater insights into fruit bat communication, highlighting new approaches in computational linguistics.
- Collaborated with a global team of open-source developers and researchers, leading to successful pull requests merged into the [Earth Species Project library](#).

Sylebra Capital, Global technology-focused investment firm

Wan Chai, Hong Kong

Data Scientist and Quantitative Fundamental Researcher

Aug' 2019 – Feb' 2020

- Spearheaded the development of quantitative models that pinpointed high-potential stocks, significantly streamlining the portfolio selection process and boosting team efficiency. Utilized Python for model development and Postgres for data management.
- Collaborated daily with financial analysts to align research initiatives with strategic investment goals, ensuring the focus on pertinent financial problems and enhancing the relevancy and impact of quantitative analyses.
- Implemented advanced data scraping and management techniques to amass terabytes of historical stock metrics, designing and maintaining a SQL database for optimized big-data storage and retrieval, underpinning investment research.
- Translated complex quantitative findings into actionable insights for non-technical stakeholders, facilitating clear and effective communication across multidisciplinary teams and supporting informed decision-making.

Muuse, Revolutionizing reuse

Bali, Indonesia & Hong Kong

Chief Technology Officer

Nov'2018 – June 2019

- Led the design and development of a MongoDB/Java-based stack. This technology interfaced with IoT-enabled point of sale stations to monitor the reuse and recirculation of cups and to-go containers.
- Coordinated with the team on successful on-ground beta testing of the technology at Hong Kong University, Dartmouth, and numerous storefronts in Canggu, Bali.
- Achieved recognition as a winner of the OpenIDEO NextGen Cup Challenge, securing strategic partnerships with industry giants McDonald's and Starbucks.
- Engaged in regular meetings with investors and sales partners, playing a key role in securing funding and extending the company's operational runway.

Frontier Institute for Research in Sensor Technologies

Orono, Maine

Undergraduate Research Fellow

Summer 2018

- Conducted research on modeling particle separation in a fixed volume filled with fluid using surface acoustic waves.
- This work focuses on the analysis of the fluid dynamics and multiphysics phenomena inside a sessile droplet, which contained particles from diverse sizes, shapes, and/or densities, as excited by an array of surface acoustic wave devices

Undergraduate Research Fellow

Summer 2017

- An Investigation on flow-driven microfluidic mixers for the production of silver nanoparticles
- Via in-situ testing and computational modeling, I advanced the design of a microfluidic mixer for the purposes of producing monodisperse nanoparticles

Advanced Structures and Composites Center

University of Maine, Orono

Data Analyst and Instrumentation Technician

Feb' 2017 – May 2017

- Analyzed data from a 52m composite windblade fatigue test using MATLAB
- Assembled DAQ systems and instrumentation for active research projects
- Conducted verification and maintenance of instrumentation

Please refer to my [Linkedin profile](#) for the complete list of work experiences.

Skills

Languages: Python, SQL, C, Bash, Java, Go

Frameworks/Libraries: FastAI/Pytorch, Tensorflow, Pandas, Cython/njit, OpenCV, Dagster, DBT.

Digital Environments: Ubuntu/Linux, AWS, GCP, Github

Areas of Expertise: *please refer to my portfolio oliver-adams-b.github.io for a more full enumeration.* Large scale statistical research, data acquisition and processing, webscraping, exploratory data analysis, computer vision, abstract mathematics.

Education

University of Maine, Orono, *magna cum laude*

ORONO, MAINE

Bachelors of Arts in Physics, Double Major in Mathematics

2015 – 2019

Sigma Pi Sigma (Physics Honors), Mu Alpha Theta (Math Honors), Presidential Scholar

American University of Bulgaria

BLAGOEVGRAD, BULGARIA

Semester Abroad Study in Mathematics

Fall 2017

Maine School of Science and Mathematics

LIMESTONE, MAINE

High School Diploma

2013-2015

Interests

Non-exhaustive: highlining/tightrope walking, bouldering, multi-pitch trad climbing, crocheting, juggling, linux, topological data analysis, tenor banjo