Owen W. Lloyd

814.441.6907 | owen7lloyd@gmail.com
owen7lloyd.github.io | Boston, MA

EDUCATION

The Pennsylvania State University | Schreyer Honors College — **University Park, PA**
Eberly College of Science | Bachelor of Science in Mathematics — *Class of 2023*
Eberly College of Science | Bachelor of Science in Data Science (Statistical Modeling) — GPA: 3.99/4.00

PROFESSIONAL EXPERIENCE

MathWorks — **Natick, MA**
Associate Application Support Engineer (EDG) — *Jul 2023*

The Walt Disney Company — **Burbank, CA**
Production Data Analytics Intern (Walt Disney Animation Studios) — *May 2022 – Aug 2022*

- Developed a full-stack tool for predicting complexity bids, utilizing Django for back-end development, PostgreSQL for the database, and Docker for deployment, outperforming historical bids by 36%
- Overhauled internal algorithm for planning the future studio slate by implementing additional optimization constraints such as project priorities and short-term hiring caps, reducing studio time costs by up to $1MM
- Implemented an ETL through AWS that ingested unstructured JSON data and converted them to a relational database housed using Snowflake, reducing the overall storage size for render data by 96.5%

Analog Devices Inc. — **Santa Clara, CA**
Data Science Intern (OtoSense AI Team) — *May 2021 – Aug 2021*

- Spearheaded the design and creation of new smart-chunking systems and visualization tools to allow for only relevant data to be passed through to audio classification pipelines, improving performance by 23%
- Designed a machine learning pipeline to detect, classify, and visualize both the faults and performance of customer equipment, leveraging spectral projectors, centroid smoothing models, and random forests
- Contributed to the development of multiple Python packages including front, a package designed to expose Python objects to pre-built UIs, allowing for seamless integration of spectral data to web-hosted pipelines

Croptix — **University Park, PA**
Data Science Intern — *Aug 2021 – Feb 2022*

- Formulated a GPS-based algorithm designed to snap leaf-level location data obtained from sensors to ground truth tree locations, increasing the initial accuracy by 12% for customer generated reports
- Supported the development of unsupervised machine learning models designed to classify disease in citrus crops using the light spectrum data of leaves, captured using our patented spectrophotometer sensor

LEADERSHIP EXPERIENCE

Alpha Kappa Psi Co-ed Professional Business Fraternity — **University Park, PA**
Vice President of Finance — *Feb 2020 – May 2023*

- Spurred short- and long-term growth by directing cash flow from a $24,000 budget towards traditionally underfunded positions with strategic importance to the organization and our philanthropic partners
- Refined professional, networking, and interviewing skills of over 100 members through at least 10 events per semester including mock interviews, resume workshops and information sessions regarding hard skills

RELEVANT COURSEWORK AND PROJECTS

Departments of Computer Science, Mathematics, and Statistics — **University Park, PA**
Discrete Mathematics, Real Analysis, Linear Programs, Probability Theory and Mathematical Statistics, Mathematical Coding Theory, Machine Learning for Data Analytics, Ordinary Differential Equations, Data Structures and Algorithms, Factorization and Primality Testing, Graduate Numerical Analysis I

Stochastic Calculus of Functions with Random Times (Undergraduate Honors Thesis) — **University Park, PA**, *Apr 2022 – Apr 2023*

- Explored the extension of the theory of calculus to the case of random independent variables, aiming to find a consistent way to extend our conception of functional dependence to domains which include randomness

Multimodal Sarcasm Detection in Sitcoms — **University Park, PA**, *Jan 2022 – May 2022*

- Performed a thorough research study on the value of audio and visual modalities to sentiment analysis models aimed at sarcasm detection, improving performance compared to text-based methods by 13.4%

HONORS, LANGUAGES, TECHNOLOGIES, AND INTERESTS

Honors: William B. Forest Honors Scholarship, Academic Excellence Scholarship, Dr. John L. Brown Memorial Scholarship
Languages: Proficient in Python (numpy, pandas, scikit-learn), R, JavaScript; Exposed to C++, MATLAB, Swift, SQL, Java
Technologies: Familiar with CSS, Docker, Git, HTML, LaTeX, PostgreSQL, Jupyter, ShotGrid; Exposed to Maya, React, Snowflake
Interests: Andy Murray, Podcasts, Hot Sauce, *MCU*, NYT Crossword, Bouldering, Sixers Basketball, Wes Anderson Movies