Oxford, MS | (423)-716-1089
dendrondal@protonmail.com | linkedin.com/in/dal-williams | github.com/dendrondal | dalwilliams.info

Jon Steven Dal Williams, PhD.

SKILLS

Programming Python (Linkedin certified), SQL (SQLite, t-SQL, SQLAlchemy), Bash

Machine Learning Supervised classification, clustering, generative modeling, sensor fusion, computer vision, natural language processing, recommender systems

Tooling Git, CI/CD (Travis, Azure Pipelines), AWS (EB, EC2, S3, Lambda), Docker, Scikit-Learn, TensorFlow, Flask, Swagger API development, webscraping, NoSQL (MongoDB, InfluxDB)

Leadership Teaching, technical communication, project management

EXPERIENCE

Insight — *Data Science Fellow* - Jan. 2020 - PRESENT

- Developed *Recyclops* (recyclops.xyz), an image classifier for recycling waste that is location-dependent, improving recycling center efficiency by mitigating end-user misclassification.
- Curated a novel dataset of 17,000 recyclable images and metadata into a SQLite database.
- Deployed resulting TensorFlow model as a REST API and HTML/CSS frontend using AWS EC2

University of Mississippi — *Research Assistant* - Aug. 2014 - Dec. 2019

- Synthesized and characterized organic semiconductors, creating easily processable semiconductors from a corn feedstock. Published in 2 papers.
- Supervised a team of five junior researchers in creating polymer formulations for targeted drug delivery and imaging, developing a novel, industrially relevant, and biocompatible pathway. Published in 5 papers and presented at 4 conferences.
- Established clear and concise standard operating procedures for complex experiments and instrumentation, reducing onboarding time for new researchers.

Fluence Analytics — *Data Science Intern* - Jun. 2018 - Aug. 2018

- Modeled sensor fusion with time-series and categorical data to increase efficiency of industrial polymer synthesis using Scikit-Learn, t-SQL, Grafana, and SciPy.
- Performed high-throughput polymerization reactions, establishing a new application and new hardware for cutting-edge instrumentation
- Automated data visualization and report creation for clients using a custom CLI built with Python, saving hours of engineering time each week

EDUCATION

University of Mississippi — *PhD., Chemistry* - Aug. 2014 - December 2019

University of Tennessee — *B.S. Chemistry, Minor in Business Administration*

Aug. 2009 - May 2014

PROJECTS

Localvore (creator) - A meal plan recommendation app that uses recipes with vegetables in season in one's region. Uses ingredient overlap to minimize food waste. Built with web scraping, MongoDB and Scikit-Learn, previously deployed as a REST API on AWS ElasticBeanstalk.

PyJanitor (contributor) - A wrapper for Pandas that enhances reproducibility and adds several domain-specific data processing tools (chemistry, biology, finance, and engineering). 6 pull requests merged into master branch, including new features, testing, infrastructure, and documentation.