

PROFESSIONAL EXPERIENCE**Koalafi** *Machine Learning Engineer**June 2021 - October 2023*

- Wrote most-called service in the company in Python, deployed via GitLab CI with Docker and Kubernetes.
- Feature engineered flags (SQL, Python) capturing special values in existing data, increasing AUC by 2%.
- Mentored data scientists in git, Python, and MLflow and built system to deploy containerized ML models.

Girihlet *Research Data Scientist**March 2021 - May 2021*

- Architected analysis software using Python and SciPy to measure immune system responses to Covid-19.
- Built Docker-based development and deployment processes for Jupyter and R apps.

The Data Incubator *Data Science Fellow**September 2020 - December 2020*

- Capstone Project aggregates tennis data (Pandas) producing interactive visualizations (JavaScript, React).
- Built image classifiers using convolutional neural networks, pooling, and the Google inception model.

BNY Mellon *Software Engineer Contractor**December 2019 - July 2020*

- Built flexible database comparison tool for end-users. (TypeScript, React, Material-UI)
- Continued development on company-wide DBaaS application. (Python, Docker, Ansible, SQL, AWS)

Hub City Media *Software Engineer II**October 2018 - November 2019*

- Implemented two new apps (React, Node), created private npm server and packages to share common code.
- Added features to existing web app (AngularJS, AWS), fixed old bugs, and reduced code base size by 30%.
- Collaborated with team to establish smart front & back end design patterns involving data modeling, validation, JavaScript 6 support, and dependency management via Scrum meetings and code reviews.

PERSONAL PROJECTS*matthewlancellotti.com***double vortex** – Collaborative code challenge. Toroidal vortex animation. (JavaScript)learnnation.org/double-vortex.html**groceries** – Menu organizer. (JavaScript)learnnation.org/groceries**prove math** – Innovative mathematics knowledge platform. (Python, NetworkX, MongoDB, JS, D3, MathJax)github.com/MareoRaft/prove-math**k_combinat_for_sage** – k-combinatorics. Contribution to the Open-Source SageMath project. (Python)github.com/sagemath/sage/issues/25931**EDUCATION****University of Virginia**, *Charlottesville, VA**August 2016 - May 2018*

Masters in Mathematics – GPA 3.78

Rutgers University, *New Brunswick, NJ**August 2009 - May 2013*

Bachelor of Science in Mathematics – GPA 3.89

HONORS

- National Merit Scholarship
- GRE score: 97th percentile in Math and Reading
- Full Tuition Scholarship at Rutgers University
- Henry Sanders Scholarship for excellence in math

TECHNICAL SKILLS

- Python: pip, PyPI, pytest, Flask, requests, NetworkX, pymongo
- Front-end: JavaScript, Node.js, React, Browserify, Electron, Lodash, gulp, HTML5, CSS3, SASS, Autoprefixer, websockets, SVG, D3, webscraping, JSON
- DS & Machine Learning: Pandas, NumPy, Scikit-Learn, data visualization, feature engineering, correlation, clustering: KNN K-means, Databricks, Snowflake
- Concepts: OOP, functional, modularization, templating, web frameworks, APIs, testing: unit, e2e, CI
- More: bash, RegExp, SQL, MongoDB, Amazon Web Services (AWS), Jenkins, agile, scrum, macOS, Linux, git, GitLab, VSCode, Vim, Sagemath, JIRA, Docker, Kubernetes