

# Daniel Farid

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## Data Scientist | Machine Learning Engineer | Program Manager

Creative thinker and communicator, stage magician and chocolatier. Innovative problem solver with the ability to improve the ways communities and businesses respond to challenges via high-level data science and advanced computational solutions. Eager to share leadership, dynamic thinking, and the following skills:

- **Programming and Distribution:** C++, Java, SQL, Python, R, MATLAB, Unix, NumPy, pandas, SAS, Anaconda
- **Data Visualization and Integrated Development:** Tableau, Excel, PowerBI, MS Visual Studios, Xcode
- **Computer Science:** Machine Learning, Natural Language Processing, Algorithms, Data Structures

*Additional Skills: Data Science | Statistics | Written Communication | Verbal Communication | Collaboration | Magic | Creative Thinking | Leadership | Program Management | Innovation | Interpersonal Skills | Problem Solving | Presentation Skills | Astronomy*

## Education & Certifications

**YALE UNIVERSITY** | New Haven, CT | Expected Graduation: May 2022

- **BS in Applied Mathematics; Data Mining and Machine Learning**, GPA 3.8/4.0
- **BS in Statistics & Data Science**, GPA 3.8/4.0
- Representative Coursework: Data Mining & Machine Learning, Probability & Statistics, Linear Algebra, Multivariate Calculus, Theory of Statistics, Data Analysis, Data Structures, Probability Theory, Economics, Natural Language Processing

*Certifications: Microsoft SQL, Udemy | Machine Learning, Stanford via Coursera | Deep Learning, Coursera*

## Professional Experience

**RESEARCH PROJECT MANAGER** | Yale University Department of Astronomy | New Haven, CT | Sep 2020 - Present

- Project manager in computational cosmology research lab of Yale professor Daisuke Nagai
- Identified and selected features to implement into machine learning models (random forest, SVM, convolutional neural networks) to cosmological data to classify galaxy populations and measure edge radius and velocity dispersion of galaxies, and reveal information about dark matter halos
- Applications of techniques include constraints on cosmology (e.g., modified gravity) and accurate dynamical mass estimates

**DATA SCIENCE INTERN** | Optum Medical Management Analytics | Los Angeles, CA | Jun 2020 – Aug 2020

- Restructured the way data was organized in organization's central database server on SQL.
- Built an interactive time series dashboard and engineered data models to reveal significant variables that affect patient readmissions
- Uncovered and verified unique methods to increase post-discharge visit (PDV) rates by 5-10% using statistical hypothesis testing, prompting company-wide policy updates after interdisciplinary collaboration.
- Navigated organization boundaries to resolve conflict and speculation about data validity
- Engineered a faster and more efficient pursuit list dashboard using SQL and Advanced Excel that generates patient-level detail reports for nearly 100,000 high-risk patients every week, providing actionable insight from otherwise complex and large datasets.

**INTERN/PROGRAM MANAGER** | Campbell Scholars Program | Los Angeles, CA | Jun 2019 – Sep 2019

- Engineered an innovative tutoring system—using data science techniques in Python—for underserved students in Los Angeles
- Student SAT scores skyrocketed by up to 20% more than traditional SAT tutoring strategies
- All ~20 students became the first in their families to attend a 4-year college. Publication is in process.

## Leadership and Volunteer Work

**CUBESAT TEAM MEMBER** | Yale Undergraduate Aerospace Association | New Haven, CT | Oct 2019 – Jan 2020

One of 16 teams chosen by NASA to launch a Cube Satellite into low earth orbit to study cosmic rays. Participated in programming/configuration of cosmic ray data analysis collected by on-board sensor.

**BOARD MEMBER (TREASURER) / CLASSROOM LEAD** | Code Haven | New Haven, CT | Sep 2019 – Present

Increase access to computer science education in local middle schools by teaching hour-long lessons on computer science principles, writing programs in Scratch, and building functional apps. Manage distribution and collection of funds from university and tech grants.

Founded [Hands for Haiti](#) to support communities in and around Port-de-Paix, Haiti: oversaw all fundraising efforts and managed distribution of \$160K in donations, which built an elementary school for 400 students and two water filtration systems in Port-de-Paix.