

Surya Dutta

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Education

University of California, Berkeley

MASTER OF INFORMATION AND DATA SCIENCE (MIDS)

Berkeley, CA

Jan. 2019 - Apr. 2020 (Exp)

Yale University

B.S. IN PHYSICS (Intensive) | GPA: 3.74/4.00

New Haven, CT

Aug. 2014 - May 2018

- Likely Letter Recipient: Top 1% of applicants to Yale College
- Relevant Coursework: Data Exploration and Analysis | Data Mining and Machine Learning | Apps, Software, and Entrepreneurship

Experience

McMaster-Carr

WEB DEVELOPER AND DATA SCIENTIST

Elmhurst, IL

Aug 2018 - PRESENT

- Improving performance of *McMaster.com* with goal of reducing median website response time to 100 ms
- Optimizing performance trace framework to predict customer behavior and produce new strategies to lower response times

United States Census Bureau

DATA SCIENCE FELLOW, CIVIC DIGITAL FELLOWSHIP

Suitland, MD

June 2018 - Aug 2018

- 10 week fellowship with the Economic Indicators Division at the U.S. Census Bureau
- Successfully built data pipeline in Python using XML parsing and machine learning to read in public SEC filings and automate completion of the Quarterly Financial Report (QFR). *Estimated impact of project: annual savings of \$800,000*
- Used previous analyst work and natural language processing to train various classification algorithms with 77% combined accuracy

Machine Learning Research (Prof. Kyle Jensen, Yale School of Management)

MACHINE LEARNING RESEARCH ASSISTANT

New Haven, CT

Dec. 2017 - May 2017

- Conducted textual analyses of mandatory SEC filings (10-K) to explore patterns correlated to corporate financial performance
- Leveraged Python's Gensim toolkit and Natural Language toolkit (NLTK) to analyze raw text and sentiment from filings using various word vectorization techniques

Neutrino Physics Research, CUORE Experiment (Prof. Reina Maruyama, Yale University)

PHYSICS RESEARCH ASSISTANT

New Haven, CT

Feb. 2016 - May 2018

- Experimental Physics Research Assistant for multinational collaboration building a \$100M three-story underground particle detector in central Italy for detecting extremely rare nuclear physics events.
- Developed machine learning algorithms, Monte Carlo simulations, and mathematical models to identify radioactive contamination in detector and improve signal-to-noise resolution by 19%

Volunteer Experience

Yale Undergraduate Research Association (YURA)

FOUNDER AND CO-PRESIDENT

New Haven, CT

Jan. 2015 - May 2018

- Founded 501(c)(3) non-profit student organization to support Yale University undergraduate researchers
- Fundraised \$25,000 to organize the first intercollegiate undergraduate research conference at Yale (Spring 2017), with 70 interdisciplinary presenters from 29 different universities across the US.
- Initiated and developed database of Yale research labs, including 1400+ listings from 60+ departments, used by 1200+ Yale students in a 5 month period, growing user base with 60% rate of return.

Skills

Programming Python, C#/.NET, Full Stack Javascript (NodeJS), SQL, MongoDB, Unix, Windows

Research Machine Learning, Data Analysis, Monte Carlo Simulations, Mathematical Modeling

Interests Intermediate Ballroom Dancer, Competitive Chess Player, Civic Tech Enthusiast