Nolan R. Bonnie

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Education

B.S. in Mathematics, with a Specialization in Data Science (GPA: 3.6) **Expected June 2021**
University of California, Irvine

Awards

Deans Honor List (x4)
Campuswide Honors Collegium

Leadership

UCI Engineering Student Council **Fall 2017 - Spring 2018**

Research and Coursework

Scientific Coursework

- Engineering: Matlab, scientific computing and visualization, data analysis, machine learning.
- Physics: classical physics and kinematics.
- Chemistry: engineering chemistry.
- Math: honors calculus, logic, linear algebra, abstract algebra, number theory, graph theory, algorithms, probability and stochastics.
- Logic and Philosophy of Science: gender biases in scientific writing, honors naturalized epistemology.

Quantification of Weekend Effect in Southern California **Spring 2019 - Present**

- First author writing a paper quantifying the ozone weekend effect in Southern California.
- Using hourly ozone data from the past 30 years provided by the Environmental Protection Agency.
- Quantification has never been done in California.

Undergraduate Research Study in Data Science and Computing **Winter 2018 - Present**

- Selected by Professor Donald Dabdub to participate in 4 quarters of individual research study.
- Studied various topics related to data science and computation, such as:
  - Scientific computing and scientific visualization
  - Programming in R, a well established statistical software
  - Data analysis, working with big data, machine learning, and neural networks.
- Applied graduate level statistical learning techniques to real world prediction problems, and used the basis of what I learned to start a business and conduct research in atmospheric chemistry.

Undergraduate Research Study in Mathematics **Winter 2018 and Spring 2019**

- Selected by Professor Chris Davis to join math research courses focused on computational sciences.
- Studied advanced computational algorithms focusing on optimization, which benefits my work involving large datasets.
- Developed skills in graph theory by proving theorems encountered in a graduate level textbook on discrete mathematics.
- Wrote an academic paper connecting graph theory to data analytics.

Relevant Work Experience

Sandia National Laboratories — Cybersecurity R&D Intern **June 2018 - September 2018**

- Managed a 7 person team working on a classified high-priority research project.
- Project was a groundbreaking proof of concept, and changed the way government servers are protected.
- Created testing data for a revolutionary cybersecurity project that used AI to prevent cyber attacks.
- Worked closely with world-renowned cybersecurity expert Vincent Urias.
- Only undergraduate hired for this position.

Prophet Predictive Modeling — Chief Quantitative Analyst **June 2019 - Present**

- Cofounded a financial predictions company, using AI to forecast the US Stock Market.
- Manage the acquisition and processing of model training data.
- Implement various proven and proprietary quantitative indicators.
- Train our model with advanced statistical learning methods.
- Backtest the model to optimize accuracy and consistency.

Learning and Academic Resource Center — Tutorial Leader **September 2018 - Present**

- Lead three supplementary course sections, with classes up to 16 students every quarter.
- Support a Matlab programming course for engineers.
- Implement proven supplemental instruction methods to help students learn and retain information.
- 96.3% student satisfaction from evaluations.

Skills and Other Academic Interests

Formal languages: Mastery of R, Python, Matlab, UNIX, HTML, CSS, Java, and Fortran 77.
Classical music: 12 years of piano, 5 years of guitar.
Philosophy relating to: ethics, metaphysics, epistemology, and happiness.