JAMIE NACHBAR

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EDUCATION

Yale University *August 2018 - May 2022*
Double Major in Computer Science and Mathematics Major GPA: 3.89/4.0 | Overall GPA: 3.70/4.0

RELEVANT COURSEWORK

Data Structures | Vector Calculus | Probability | Linear Algebra | Abstract Algebra | Complex Analysis
Intensive Algorithms | Real Analysis | Deep Learning | Artificial Intelligence | Discrete Math

WORK EXPERIENCE

University of Virginia, Research Intern, Charlottesville, VA Summer 2020

- Conducted research in the UVA Signal Intelligence Lab under Prof. Haifeng Xu. Investigated optimal signalling schemes in Bayesian games, with a focus on routing games.

Astraea, Software Intern, Charlottesville, VA Summer 2017 and Summer 2018

- Developed a tool to more easily visualize 7-band multispectral imagery: **Github**
- Created demonstrations of the RasterFrames API, like tracking deforestation in the Amazon Rainforest and measuring construction of a housing project using satellite imagery and ML: **Github**

SELECTED PROJECTS

Neural Network Weather Prediction: Github Summer - 2020

- Created a neural network designed to predict rainfall in the city of Rio de Janeiro, using a dataset provided by the Brazilian government.
- Used ten years of weather data to train the PyTorch network to predict the next 4 hours of rainfall given the past 8 hours of weather data (8 features for each hour).

Deep Learning Alzheimer's Diagnosis: Github Spring - 2020

- Implemented a Convolutional LSTM neural network in PyTorch with a team of other students to predict Alzheimer diagnosis given a sequence of MRI brain scans.
- Designed the network architecture, as well as located, partitioned, and prepared the data, which consists of thousands of three-dimensional brain scans, for use in training and testing.

Zero Robotics Winter - 2018

- Lead a team, using C++ to program jet-propelled robots on the International Space Station.
- Placed first in the world in the simulation phase and advanced to the global finals.

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, Scala, Bash
Libraries: Git, Jupyter, NumPy, Pandas, Apache Spark, PyTorch

EXTRACURRICULARS

Member of Yale College Executive Committee *August 2019 - Present*
Teaching Assistant: Structure of Networks *January 2020 - Present*
Writer, Yale Scientific Magazine *January 2020 - Present*