

Dean Shaff

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Education

New York University Abu Dhabi

May 2016

B.S. Physics

Minor in Applied Mathematics

Overall GPA: 3.876

Work Experience

New York University

Spring 2016 - Present

Research Assistant

New York City, NY

- Improving Python hardware APIs for Tidbinbilla 70m radio antenna.
- Using APIs to interface with GUI application written in PyQt.

Feelix Co., Manama, Bahrain

Spring 2016

Software Engineer

Abu Dhabi, UAE

- Designing a Java control API for proprietary hardware setup.

Research Experience

Undergraduate Thesis Project

Fall 2015 - Spring 2016

Dr. Mohamed Lotfi Benabderrahmane

Abu Dhabi, UAE

- Increasing signal efficiency in XENON100 dark matter experiment using novel waveform based approach.
- Applying supervised machine learning algorithms, Boosted Decision Tree (BDT) and Multilayer Perceptron (MLP).

Research Assistant

Summer 2014 - Present

Joseph Gelfand

New York City, NY

- Testing a model that describes the spectral and dynamical properties of pulsar wind nebulae (PWNe).
- Developing a series of Python scripts to implement a Markov Chain monte carlo to establish best fit parameter distributions for Prof. Gelfand's model.

Additional Programming Experience

Theano RNN

Summer 2016 - Present

- Implementing a Long Short Term Memory (LSTM) Recurrent Neural Network (RNN) using Theano, a Python library for making artificial neural networks.

Technical Strengths

Computer Languages

Python, Lua, Java

Modules

NumPy, SciPy, Theano, Torch, Matplotlib, Django, Scrappy, PyQt, NLTK

Databases

PostgreSQL

Scientific Research

Applications of Bayesian statistics to model fitting

Using supervised machine learning for binary classification tasks

Languages

Proficient in Portuguese