Jared S. Feingold

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EDUCATION

Johns Hopkins University **Baltimore, MD**

BS in Computer Science, Whiting School of Engineering *May 2021 (expected)*

BS in Physics and Astronomy, Krieger School of Arts and Sciences

- **GPA:** 3.84/4.00. Nominated for Dean's List (2018, 2019).
- **Coursework:** Introduction to Java, Intermediate Programming in C and C++, Data Structures in Java, Algorithms, Natural Language Processing, Special Relativity and Waves, Modern Physics, Classical Mechanics, Quantum Mechanics, Linear Algebra, Differential Equations, Probability and Statistics.

TECHNICAL EXPERIENCE

The Institute for Data Intensive Engineering and Sciences (IDIES) **Baltimore, MD**

Undergraduate Researcher *Fall 2019 - Present*

Working with Prof. Alex Szalay in conjunction with the Space Telescope Institute to create a new system for the storage of astronomy and medical images.

- Building a Python package to port images from the Flexible Image Transport System (FITS) to OpenEXR format. This package will reduce image storage by more than 50% by using 16-bit pixel types and wavelet compression.

KVH Industries **Newport, RI**

Intern, Software Engineering *Summer 2019*

- As part of a cross-functional agile team, coded embedded software in C for 3-axis high-performance fiber optic gyro for F-18 fighter jets.
- Debugged via JTAG emulators in environment with multiple processors and shared memory.
- Built UART driver and MDMA driver code for communication in dual-core code base.
- Designed and implemented suite of UI regression tests from scratch (3000+ lines in Python).
- Participated in regular version control code reviews, daily standups, and frequent presentations to senior management team (including CEO) as part of Scrum methodology.

The European Center for Nuclear Research (CERN) **Baltimore, MD**

Undergraduate Researcher *Fall 2018 - Spring 2019*

Worked under Prof. Andrei Gritsan to improve tracker alignment for the Compact Muon Solenoid branch of the Large Hadron Collider in Geneva, Switzerland.

- **Tracker Alignment:** Developed advanced statistical methods for the alignment of thousands of sensors using Python, Unix, and C++. Examined alignment of sensors by looking at particular degrees of freedom to reveal features of the whole system. Revamped a legacy alignment tool for current use (C++).
- **Machine Learning:** Utilized Boosted Decision Trees and Neural Networks to study if machine learning can outperform probabilistic quantum mechanical (QM) methods for identifying anomalous couplings of the Higgs Boson. Experimented with different boosting and cut optimization algorithms. Used ROC curves to compare the efficiency of QM versus ML in ideal and suboptimal conditions.

BrainQ Technologies LTD **Jerusalem, IS**

Intern, Business Analyst *Summer 2018*

- Constructed defense against USPTO Office Action for a patent to treat stroke and spinal cord injuries by using AI to interpret electroencephalogram (EEG) scans. The defense was successful and patent achieved.
- Collaborated with Product Manager to run UI quality assurance on neuro-therapeutic device.

SKILLS

- **Programming:** Python, Java, C, C++, Git, Jira, Unix, Scrum, Machine Learning experience.