Ian Hunt-Isaak

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EDUCATION

B.A. in Physics, Oberlin College, May 2017 – Candidate in Physics Honors program

GPA: 3.88 in major, 3.76 overall

Stanford University Coursera Machine Learning course
https://www.coursera.org/account/accomplishments/certificate/CC7QFHVB78DN

TECHNICAL SKILLS

- Python, Java, Processing, C++, Mathematica
- Git, SVN, LaTeX
- Machine Learning
  - Neural Networks, SVM
- Linux/Unix systems
- Linear Algebra computations
- Data visualization
  - Matplotlib, Processing

EXPERIENCE

National Institute of Standards and Technology Summer 2016
Summer Undergraduate Research Fellow

- Designed and developed an X-Ray and Neutron scattering calculator for protein simulations with periodic boundary conditions
- Reduced computation time of scattering calculation and analysis algorithm on multi-million atom systems 5-6x using NumPy and C++
- Improved the SASSIE and SASMOL projects code developed and utilized by researchers for analysis and modeling of biological macromolecules

Rutgers University – Relativistic Heavy Ion Group Summer 2015
REU student

- Studied the Quark Gluon Plasma through Monte Carlo Simulation
- Improved a framework to run Monte Carlo Simulations - github.com/ianhi/GeneratorInterface
- Investigated the 3/2 jet ratio in lead ion collisions with C++ using the ROOT framework
- Presented results at APS Division of Nuclear Physics Annual Meeting, Sante Fe NM, Oct. 29, 2015

Oberlin College – Ijiri Physics Lab Jan. 2015 - Present
Researcher

- Investigated magnetic structure of Manganese Ferrite Nanoparticles via Neutron Scattering
- Extended the NIST SANS macros enabling faster analysis
- Developed python analysis scripts for systematic fitting of hundreds of data files

Oberlin College 3D Printing Sept. 2015 - Present
Treasurer and Director + ExCo Instructor

- Manage $4,000 budget
- Teach an ExCo (taken for credit by Oberlin College students) designed to introduce students to the technical skills of making and DIY culture. Taught Fall 2015, Spring and Fall 2016

Tutoring Fall 2014 - Present
Via Oberlin College and Independently

- Subjects include Single and Multivariate calculus, Intro Economics, IB Math, IB Physics

DISTINCTIONS

- One of four Oberlin nominees for the Goldwater Scholarship in 2016
- John F. Oberlin Scholarship recipient
- 3rd Degree Black Belt from AmKor Karate. (Training since 2004)

Oct 26, 2016