

EDUCATION

- **Haverford College** Haverford, PA
Pursuing Bachelors of Science in Computer Science *Class of 2019*
 - **Coursework:** High Performance Computing, Speech Synthesis and Recognition, Linear Algebra, Calculus, Programming Languages, Computer Organization, Theory of Computation Computer Security, Mobile Development, Algorithms, Management and Leadership, Concurrency and OS, Human Computer Interaction
- **Varsity Baseball** Catcher, Infielder
Member of NCAA baseball team *2016 Centennial Conference Champions*

EXPERIENCE

- **Cray Inc. - Artificial Intelligence Research** Seattle, Washington
Software Engineer *May 2017 - August 2017, May 2018 - present*
 - **AI research:** Member of research team dedicated to producing solutions to industry and research bottlenecks through applications of AI on Cray supercomputers.
 - **Chapel:** Helped develop Chapel: a parallel programming language used for high performance computing. Chapel is utilized in areas such as distributed and parallel computation, big data analytics, and scientific computing.
 - **Agile:** AI team incorporated Agile methodologies to speed up development. Leveraged ZenHub, a kanban like tool to manage large software projects.
- **Will2Golf** Richmond, Virginia
Data Engineer *December 2015 - June 2016*
 - **Big Data:** Responsible for collecting, organizing, and maintaining the data for all Junior Golf tournaments in the United States. Utilized database tool MongoDB to store and retrieve data efficiently.
 - **Data Collection and Analysis:** Developed multi-threaded Python programs for data scraping, cleaning, and analysis. Completely automated formerly manual process of data collection.
 - **Start-up Experience:** Gained experience in a start-up environment. Filled multiple technical positions which allowed Will2Golf to stay lean.

PROJECTS

- **Model Parameter Optimization:** Designed and developed a deep learning framework to automate and enhance the process of tuning a numerical model. The MPO framework allows model developers to tune high-resolution models with computationally inexpensive, low-resolution models of the same type, saving developer time and resources.
- **University Student Retention:** Researched and developed a machine learning model for retention rates at universities. Used MongoDB, Python, and JavaScript to build web application that uses data from a mobile application to predict at-risk students at universities.
- **Mason:** Created Mason: a high performance package manager for Chapel, from the ground up. Developed extensive continuous integration(CI) tests to run nightly via Jenkins. Mason provides Chapel developers the ability to interface with external dependencies in C, C++, and Python
- **CryptoNet:** A recurrent neural net using long short term memory to predict trends in the price of crypto-currencies. CryptoNet is written in Python and uses the Keras deep learning library.

SKILLS

- **Principal Languages:** Python, Chapel
- **Familiar Languages:** Java, C, C++, Javascript, HTML/CSS, SQL
- **Tools:** Amazon Web Services, MongoDB, Travis CI, Jenkins, Docker, Git, Slurm
- **Frameworks:** Keras, TensorFlow, CUDA, Flask, Django, React, Bootstrap
- **Extracurricular:** Varsity Athlete, Eagle Scout, FIG Software, Public Speaking