

EDUCATION / COURSEWORK

- Carnegie Mellon University (15-110) Principles of Computing
- Mellon College of Science (85-419) Parallel and Distributed Processing
- B.S. Neuroscience | May 2019 (03-363) Systems Neuroscience

EXPERIENCE

- **Gittis Lab | Research Assistant | Mapping Cerebellum to Basal Ganglia | Spring 2018**
Applied optogenetic methods and paw tracking algorithms to establish neural link between cerebellum and basal ganglia in mice. Worked alongside Ph.D. students in a first-of-its-kind study to prove previously theorized synaptic link between two brain structures responsible for motor skill learning.
- **Loewenstein Lab | Project Manager | Dictator Game | Fall 2018**
Conducted game theory research using a popular experimental instrument in behavioral economics (The Dictator Game) to compile a database for Loewenstein Lab research. Responsible for recruitment, setup, execution, and conferral of campus research to collect behavioral economics data.
- **Neural Network Encoding | Carnegie Mellon University | Spring 2018**
In the class Parallel and Distributed Processing in the Computer Science department at Carnegie Mellon, a hands-on approach was taken to build and test multiple different artificial intelligence neural networks. The software Lens was used to create various networks that worked with small-batch data sets, trained over varying epochs and with varying number of hidden, input, and output units to understand the nature of artificial intelligence and how one can design and program a network to produce desired outcomes based on novel inputs after training on a standard set.

SKILLS

- **IBM® SPSS | Data Analysis | Public Speaking | Neural Networks | Python | Tutoring | Science Communication**

INTERESTS

- **Co-Author | SQUARE1™ Book | Neuromotor Physical Therapy and Training System | Summer 2019 – Present**
Co-authoring book with founder of Square1™ system outlining the science behind a neuromotor approach to physical therapy, athletic training, and physical health based on the layered encoding of the motor movement network in the human body.
- **President | Archery Club | Carnegie Mellon University | Fall 2017 – Fall 2018**
Petitioned to begin archery club at Carnegie Mellon University and gained enough signatures to secure funding for equipment. Organized and led group outings to local archery range with co-chair.
- **Winning Team | Entrepreneurship Practicum | Carnegie Mellon University | Fall 2012**
In an entrepreneurship class taught at Carnegie Mellon by the famed R.F. Culbertson, my team used various methods to come in first place in the class and accrue winnings of over \$10,000 cash from an initial stipend of \$100 after acquisitions and mergers with other teams. We engaged in various opportunities including, but not limited to, T-shirt sales, operation of a food truck, offering "free money" for incentivized signups, and delivering presentations both on and off campus.

ATHLETICS

- **Carnegie Mellon University | Varsity Track & Field**
- **Carnegie Mellon University | Varsity Football**