

Niall Dalton

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Website: <https://ndalton12.github.io/> · GitHub: <https://github.com/ndalton12>

Education

Current Enrollment: Bachelor of Science (Jan. 2021) in **Computer Science and Physics** at **Northeastern University**

Selected Coursework: Multivariable Calculus, Modern Physics, Differential Equations, Discrete Math, Algorithms

High School: Massachusetts Academy of Math and Science at Worcester Polytechnic Institute (GPA: 3.92/4.00)

Computer Skills

Programming: Proficient in Python (incl. Pandas, NumPy, scikit-learn, Keras, etc.), Java, Racket, HTML/CSS, Bootstrap, Django; Working knowledge of Git + GitHub, Vim, DL4J, Shell scripting and Unix

Media creation: GIMP, Google Suite, Sony Vegas, Adobe Premiere, LaTeX

Programming Projects

- **Scientific Truths Are Not Self Evident: Science, Perception, and Identity in America Since the 1960s**
 - A study of the perception of science using NLP techniques and big data, see [here](#)
- **Shifting Morals: A Study in Probabilistic Machine Ethics** (*Bootstrap + Django*)
 - Presents probabilistic machine ethics problems and crowd-sources ethical decisions
 - <https://shifting-morals.herokuapp.com/> (may take a few seconds to load initially)
- **Django Web Framework: Contributor** (*Python*)
 - Wrote a small Python wrapper for a C function, see Pull Request [here](#)
- **Quantum Algorithm for Square Root Convergence** (*C + Shell*)
 - Wrote an algorithm for optimizing square root convergence using quantum computing
- **Decisions: The College Finance Game** (*Android*)
 - Collaborated on an Android game using a M-V-C pattern
- **Predicting Stock Prices with a Recurrent Neural Network** (*Java + DL4J*)
 - Used DL4J to write a RNN to process historical stock data

Experience

- **Adventure Code Academy: Teacher** (June 2018 - August 2018)
 - i. Taught web and app design, coding fundamentals in Scratch and Python, and led the robotics club
- **Curious Science and Learning: Math and Robotics Instructor** (March 2014 – May 2018)
 - i. Leader of summer robotics camp, personalized math tutor, and robotics course teacher

Awards and Activities

Awards: WPI Charles O. Thompson Scholar, 1st place CyberPatriot Gold Division in MA, Xerox Innovation Award

Activities: Society of Physics Students, Big Data.NU, NU ACM

Certificates: *CSSI-Coursera Program:* Google Student Development team course in “[Java Programming: Build a Recommendation System](#)”; *MITx 6.00.2x:* [Introduction to Data Science](#); *MITx 24.118x:* [Infinity and Paradox](#)

References available upon request