Daniel Melcer

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Education

Northeastern University — *Boston, MA*

B.S. in Computer Science • Minors: Math & Physics • GPA: **4.00** — *May 2021*

- Candidate for PlusOne MS program.
- **Relevant Coursework**: Fundamentals of Computer Science, Discrete Structures, Linear Algebra, Building Extensible Systems, Algorithms.

Awards

Fall 2017 **Dean's List**, College of Computer and Information Science

Activities

2017 - Present **Member**, Paradigm Hyperloop
2017 - Present **Member**, Times New Roman Satire Magazine

Smithtown High School East — *Saint James, NY*

Graduated with Honors • GPA: **4.64** — *June 2017*

Awards

2017 **Research Report Badge**, Society for Science and the Public
2017 **National AP Scholar**, The College Board
2017 **Physics Award**, Smithtown High School East

Activities

2013-2017 **Lead Programmer & Vice President of Engineering**, Smithtown Robotics
2014-2017 **Technical Director**, Math Honor Society

Skills

Programming Java, Solidity, C++/CUDA, Python, Racket, React JS
Technical Git, Autodesk Inventor, Basic Electronics, 3D Printing

Experience

College of Computer and Information Science • Northeastern University — *Boston, MA*

Fundamentals Of Computer Science 1 Tutor/Grader — *January 2018-Present*

- Provided guidance to students during lab sections on topics such as program design and testing.
- Hold scheduled office hours to assist students with concepts taught during lecture.

Brookhaven National Laboratory — *Upton, NY*

Summer Intern — *July-August 2016, 2017*

- Developed a Django website to conveniently access a database of on-site network switches.
- Wrote a Python desktop application to manage, sort, and search a database of ethernet ports in multiple buildings.
- Used CUDA to search for continued fraction representations of known roots of the Riemann Zeta function.

Adademic and Technical Projects

Invertible Programming Language • Northeastern University — *Boston, MA*

Racket programming language extension • Project for Building Extensible Systems — *Spring 2018*

- Created a programming language extension to define invertible functions.
- Used algebraic inverse rules to allow for the automatic creation of inverses for functions that are composed of other invertible functions.

Smart Contract Applications • Personal Project — *Winter 2017-2018*

Connect Four Implemented via Smart Contract • connect.danielmelcer.net

- Learned how to develop applications to run on Blockchain-based platforms independently.
- Programmed a Solidity smart contract allowing people to create, join, and play Connect Four games.
- Built a corresponding website to interface with the contract if a Web3 browser or extension is installed.