

# Daniel Melcer

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Availability: January 2019 - June 2019

## Education

### Northeastern University

Boston, MA

College of Computer and Information Science • GPA: 4.00/4.00

September 2017 - Present

Candidate for a Bachelor of Science in Computer Science

May 2021

Meets requirements for admission to 5-year Master of Science program

May 2022

**Minors** Math, Physics

**Coursework** Graduate Algorithms, Computer Systems

Undergraduate Building Extensible Systems, Object Oriented Design, Linear Algebra, Group Theory

**Awards** Honors Program, Dean's List

**Activities** Deputy Head of Communication of Times New Roman Satire Magazine, Webmaster of NUHacks

## Skills

**Languages** Java, C#/VB.NET, Typescript, Javascript, Python, SQL, Racket, Solidity, C/C++

**Frameworks** Keras, RESTEasy, React, Sequelize, CUDA, Truffle, Django

**Tools** Git, Oracle, Postgres, AWS

**Technical** Autodesk Inventor, Basic Electronics, 3D Printing

## Experience

### College of Computer and Information Science • Northeastern University

Boston, MA

Fundamentals of Computer Science 1 Course Assistant

January 2018 - Present

- Provided guidance to students during lab sections on topics such as program design and testing
- Held scheduled office hours to assist students with difficult concepts taught during lecture
- Evaluated student work and wrote detailed feedback about program architecture and implementation

### Forward Thinking Systems

Jericho, NY

Software Development Intern

May 2018 - August 2018

- Detected specific features present in image thumbnails with Python and Keras
- Devised a Typescript Alexa application to answer common customer queries about their fleet
- Collaborated with Poland office on C# application to view and export archived video from an external disk
- Migrated a password-based Java SOAP application to REST and implemented an OAuth2 token flow
- Created a real-time dashboard in VB.NET to report statistics on current support queues and SLA percentages

### Brookhaven National Laboratory

Upton, NY

Summer Research Intern

July 2016 - August 2017

- Worked with IT to construct 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 over 1000 ethernet ports
- Increased speed of search for new continued fraction representations of known constants over 100x with CUDA

## Projects

### Invertible Programming Language • Northeastern University

Boston, MA

Language Extension • Project for Building Extensible Systems

January 2018 - April 2018

- Extended Racket programming language and standard library to allow for definition of invertible functions
- Utilized algebraic rules to automatically generate inverses of functions composed of other invertible functions

### Smart Contract Applications • Personal Project

December 2018 - January 2018

Connect Four via Smart Contract • connect.danielmelcer.net

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