

# JOSEPH BERMAN

## EDUCATION

### Northeastern University

Boston, MA // Anticipated May 2024

- Major: Computer Engineering & Computer Science Combined
- Minor: Entrepreneurial Startup
- GPA: 3.28
- Relevant classes: Computer Architecture, Digital Design and Computer Organization, Networks, Embedded Design, Circuits and Signals, Discrete Structures, Differential Equations and Linear Algebra, Calculus 2, Statistics

## WORK EXPERIENCE

### National Institute of Standards and Technology

Data Scientist Intern // Gaithersburg, MD // May - August 2019

- Contributed to ongoing projects of High Performance Computing and Visualization group (HPCVG)
  - Created virtual reality simulations and 3D animations of scientific data
- Designed, developed, and tested code to support HPCVG's proprietary software
  - Created tools for easier usage of different file types
- Analyzed simulations and data to determine accuracy
- Contributions acknowledged in NIST research paper

### Northeastern University Informational Technology Services

Customer Experience Technician // Boston, MA // July 2020 - July 2021

- Telephonic technical support for university technologies
- Solved over 475 problems with a 4.83/5 rating

## PROJECTS

### MIPS Processor

Boston, MA // January 2021 - April 2021

- Designed and created a Microprocessor based off MIPS Architecture
- Coded in Verilog and tested on Xilinx ZYNQ FPGA
- [Source code on GitHub](#)

### Electrocardiogram

Boston, MA // January 2021 - April 2021

- Designed, constructed, and tested an ECG to measure heartrate
- Implemented the use of filters and op-amps to clean signal

### Space Themed Boston Children's Museum Exhibit

Northeastern University // January 2020 - March 2020

- Created an exhibit for the Boston Children's Museum
- Designed and built custom RFID antenna to scan objects 6 inches away

## ORGANIZATIONS & ACTIVITIES

### Beta Gamma Epsilon Fraternity

Boston, MA // October 2020 - Present

- Active member of local engineering fraternity
- Currently IFC Chair which represents our chapter to the University

### The Husky Husky

Boston, MA // May 2020 - Present

- Design article illustrations for Northeastern satire newspaper
- Actively engage with writers to match art with creative vision of article

## INFO

- 📞 By Request
- ✉️ [Joseph@jberman.dev](mailto:Joseph@jberman.dev)
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## SKILLS

### Programming Languages

Python  
C++  
Verilog  
RISC-V Assembly  
Java  
MATLAB

### Operating Systems

Windows  
Ubuntu  
CentOS/RHEL  
Arch  
macOS

### Software Tools

Intel Quartus  
Arduino  
Xilinx Vivado  
OrCAD Capture CIS  
Paraview  
Solidworks  
Git

## AWARDS

Dean's Honor List:

Spring 2020

AP Scholar Award, 2019

North American Award,  
Trinity College International Home  
Firefighting Robot Contest, 2019