# Lukas Kruegle

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562 Dorchester Drive, River Vale, NJ 07675
*Available for Co-op July to December 2018*

## Education

**Northeastern University** *Boston, MA* May 2020
**Bachelor of Science in Computer Engineering** GPA 3.54
Minor in Computer Science and Theatre
*Coursework:* Fundamentals of Engineering Algorithms, Embedded Design, Fundamentals of Networks, Discrete Structures, Fundamentals of Electronics, Engineering Design, Problem Solving and Computation, Probability and Statistics

## Technical Skills

*Operating Systems:* Windows, Linux/Unix, macOS
*Code:* C++, Java, Python, Javascript, HTML, Matlab, Arduino, Racket
*Hardware:* Arduino, Zedboard, Digital Multimeter, Oscilloscope, Soldering Iron
*Software:* Github, Jama, Jira, Microsoft Office Suite, AutoCAD, PSpice

## Work Experience

**ERT (eResearch Technology, Inc.)** *Boston, MA* July 2017 - December 2017
*Project Software Test Engineer Coop*

- Interpreted Project Design Specification documents that defined protocols for clinical trials conducted by the world's top Pharmaceutical companies.
- Validated software against Project Design Specification documents.
- Investigated, reported, and maintained defect documentation for various software products using Jama and Jira.
- Facilitated global communication between an interdisciplinary engineering team to identify defects and propose solutions
- Worked with software Quality Engineers to improve test scripts to fully validate software based on the Project Design Specification.

**Avida Security Works** *Park Ridge, NJ* September 2011 - August 2016
*Assembly, Research/Development*

- Developed a touch screen UI that communicated system faults and current system status information to the user.
- Implemented HTML and Javascript in Evothings Studio to build an iPhone Application.
- Demonstrated an iPhone controlled multisensory anti-tamper/anti-theft device.
- Tested camera focus, image quality, and wireless transmitter reliability for quality assurance.
- Assembled circuit boards, camera housings, transmitter/receiver housings, and various cables to build inventory.

## Engineering Projects

*Data Structures/Algorithms* Spring 2018
Implemented various data structures and algorithms in C++ and benchmarked the performance of each algorithm. Examples of data structures include:

- Linked-List
- Array-List
- Iterators
- Stack
- Heap
- Queue
- Priority Queue
- Hash Table

Algorithms:

- Merge Sort
- Quick Sort
- Heap Sort

*Arduino Keyboard* Spring 2016
Designed an educational keyboard to teach students about musical notes and how they relate to one another. Used an Arduino with 8 pushbuttons as keys, an LCD screen to display the current notes being played, and a small piezo buzzer to play each tone.

## Interests

I have a passion for Theatre and music. I regularly participate in a student run Musical Theatre group where we collaborate to design and perform Musicals. I also enjoy maintaining a vinyl record collection and curating music recommendations for my friends.

References available upon request.