# Joonho Han

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## EDUCATION

#### B.S. Computer Engineering - 2018

Boston University College of Engineering Major GPA: 3.66/4.0

Courses:

- (Graduate) Digital Image Processing
- (Graduate) Cybersecurity
- · Operating Systems

### WORK EXPERIENCE

# Applied Algorithms Course Teaching Assistant

[Boston University / September 2016 ~ Present]

- Helps students understand algorithmic concepts such as graphs, balanced trees, linked lists, and more.
- Provides homework solutions in C++ implementing various data structures.
- · Automated grading over 70 homework with a linux script

#### Undergraduate Research Assistant

[CIDAR Labs / June 2016 ~ Present]

- Developed asynchronous web socket APIs in Java, JS, and Python for a lab experiment automation framework.
- Unit tests both client and server-side sockets.

#### Tinker Lab Advisor

[Boston University / June 2016 ~ Present]

- Gives consultation to personal engineering projects regardless of the technology involved.
- Leads student workshops on both mechanical and computer engineering topics.

#### SKILLS

# Languages C++ Bash Python JavaScript Git Verilog HTML5 CSS3 MatLab

Java

XML

C#

#### OS

Arch Linux Debian Linux Raspbian Linux Mac OS X

#### Frameworks/Tools

Android API Parse API Processing3 Raspberry Pi Arduino MSP430G2553

# PROJECTS

#### X Seltra (Current)

- A fully functional tablet running Arch Linux with a desktop environment.
- Understood how Linux works from the ground up.
- Manufactured a custom case and all electrical assembly.
- Future plans include graphics driver and bluetooth programming.

#### Internet of Things (IoT) Pill Dispenser

- A pill dispenser that sends the user text notifications to take the pill.
- Programmed two microprocessors in Java and C to divide the pill scheduling and dispensing tasks.
- Designed a custom protocol to communicate between boards.

#### Smart Pedometer

- Developed a C algorithm determining whether the user is walking or running.
- Interfaced with an accelerometer using SPI protocol.
- Displayed data from a microprocessor by interfacing with an LCD.

#### Portfolio Website

http://feeltotouch.design/

- A Github-hosted website that features personal product design projects.
- All source code created from scratch using HTML5 and CSS3

#### Ink - Android Notebook App

- Play Store Rating: 4.2/5.0
- A Minimalistic notebook app written in Java and XML
- · Developed with clean GUI as the goal
- · Some of the functions are:
  - 1. Color labeled categorization
  - 2. Categorized note search
  - 3. Cloud backup using Parse API
  - 4. Password protection

#### Seltra - Watch-shaped Wristband

http://feeltotouch.design/work/seltra

- A jewelry that represents my personal definition of beauty.
- 3-D printed the stainless steel frame with custom CAD.
- Hand manufactured and polished the entire product