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Boston, MA  
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# Gabriel Klavans

## Software Engineer

GitHub: gabeklavans  
LinkedIn: gabrielklavans

Computer Scientist interested in signal processing, developing software for audio/music, and generally making people's lives better. Passion for music, video games, and free, open source technology for all.

### SKILLS

**Languages** JavaScript/TypeScript, Java, Python, C++/C,  $\text{\LaTeX}$   
**Tools and Environments** Git, NodeJS, AngularJS/ReactJS, Git, VSCode, MongoDB, Jenkins, Mocha/Chai

### TECHNICAL EXPERIENCE

**ASSOCIATE SOFTWARE ENGINEER** Sept 2021 — Present  
*Canon USA, Healthcare Optics Research Lab* Cambridge, MA

- Completed component for uploading firmware to STM32 ARM chips within our proprietary application
- Prototyped and collaborated on a Jenkins automated build-server for use in multiple projects

**FULL STACK JAVASCRIPT ENGINEER** (Intern) Aug 2020 — Apr 2021 / (Full-time) Apr 2021 — Sept 2021  
*Tapple* Boston, MA

- Contributed to every level of the stack: AngularJS, SailsJS (NodeJS wrapper), MongoDB
- Spearheaded feature involving PhaserJS-based customizable browser games
- Worked closely with technical lead to discuss architecture and design goals for the product
- Took charge of style/static analysis tools for code-base

### PROJECTS

**PITCH DETECTION DIRECTED STUDY** [gabeklavans/computational-audio](#)  
*Directed study with Prof. Wayne Snyder in fundamental frequency ( $F_0$ ) detection*

- Studied and implemented several  $F_0$  detection methods, such as autocorrelation, YIN, and cepstral

**NUMPADULATOR** [gabeklavans/Numpadulator](#)  
*Numpad that doubles as a 4-function calculator*

- Designed case/plate fixtures in Fusion360
- Designed and assembled PCB from scratch using KiCad
- Runs on a slightly modified version of QMK, a C-based open-source keyboard firmware

**STALKS.** [gabeklavans/stalks-app](#)  
*Mobile companion app for the game Animal Crossing: New Horizon*

- Made using ReactNative + TypeScript
- Created a custom graph to display time-series data generated from an algorithm mined from the game by community members

### EDUCATION

**Master of Science in Computer Science**, *Boston University* Sept 2020 — May 2021  
**Bachelor of Arts in Computer Science**, *Boston University* Sept 2017 — May 2021

### ACTIVITIES

**BU Bands Member**, *Boston University* 2017 — 2021  
**Xylo & Drumset Player** *Spartans Drum & Bugle Corps* 2018, 2019 (Gold Medalists)  
**Discrete Mathematics Course Assistant** *Boston University* Spring, 2020