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Gabriel Klavans

Computer Scientist

Website: dabe.tech
GitHub: [gabeklavans](https://github.com/gabeklavans)
LinkedIn: [gabrielklavans](https://www.linkedin.com/in/gabrielklavans)

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, Python, C++/C, Java, Rust (learning), C#, \LaTeX
Tools and Environments Git, NodeJS, AngularJS/ReactJS, Git, VSCode, MongoDB, Jenkins, Mocha/Chai

TECHNICAL EXPERIENCE

ASSOCIATE SOFTWARE ENGINEER (Mainly C++/C#)

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
- Created documentation for software component specification and verification for use in our quality management system
- Performed several iterations of bug-detection/fixing on a complex architecture written by multiple engineers over the span of several years

FULL STACK JAVASCRIPT ENGINEER (JavaScript/Typescript)

(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](https://github.com/gabeklavans/computational-audio)

Directed study with Prof. Wayne Snyder (Boston University) in fundamental frequency (F_0) detection

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

NUMPADULATOR

[gabeklavans/Numpadulator](https://github.com/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](https://github.com/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, 3.83 GPA

Bachelor of Arts in Computer Science, *Boston University*

Sept 2017 — May 2021, 3.83 GPA

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