Gabriel Klavans

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Boston, MA
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Computer Scientist

GitHub: gabeklavans
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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*
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 algoithm 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