(407) 408-4325
Boston, MA
gabecodes@fastmail.com

Gabriel Klavans
Computer Scientist

Website: dabe.tech
GitHub: gabeklavans
LinkedIn: gabrielklavans

Loves exploring new technologies and tools, collaborating with others, and being thougtful about process and impact.
Multi-instrumentalist with a passion for music, games, and free, open source technology for all.

SKILLS

Languages	JavaScript/TypeScript, Python, C++/C, Java, Go, LaTeX, Rust, C#
Tools and Environments	Git, NodeJS, CMake, GH Actions, Docker, Doxygen, Jenkins, CircleCI, GTest, MongoDB, Mocha/Chai

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER (C++/Android/Python/Matlab) Sept 2022 — Present
Yobe Inc. *Boston, MA*

- Designed signal processing algorithms in Matlab and implemented them in C++
- Transitioned entire codebase to GitHub and pioneered Yobe's CI/CD and developer build systems
- Created and maintained the Yobe SDK API documentation using Doxygen
- Created a unit-test suite with GTest and support scripts in Python
- Lead development-process and business brainstorming sessions with entire company
- Helped develop an Android app and SDK to package Yobe's core library for Android

ASSOCIATE SOFTWARE ENGINEER (C/C++/C#) Sept 2021 — Sept 2022
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
- Created a test suite for a proprietary serial communications library using GoogleTest
- Performed iterations of bug-detection/fixing on a complex architecture written by multiple engineers over the span of 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

OTHER EXPERIENCE

SENIOR GAME/DEVOPS DEVELOPER (Volunteer, Python/C++) December 2022 — Present
Non-profit free-to-play revival MMO game *corporateclash.net*

- Modernized our fork of Panda3D, the open source game engine we use, by merging in 3 years worth of changes while solving merge-conflicts and bugs
- Worked on GitHub CI-based devops functionality, orchestrating game builds and updates and containerizing build steps
- Participate in game design discussions and bugfixing

PITCH DETECTION DIRECTED STUDY (Academic) *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 (Personal) *gabeklavans/Numpadulator*
Designed-from-scratch mechanical numpad

- 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

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
Minor in Music (Theory), *Boston University*	

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**