

Timothy Bausch

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SUMMARY OF QUALIFICATIONS

- Highly motivated and self-taught iOS developer with 3 years of software development experience having built multiple applications used in educational, research-based settings, and in private sector.
- Experience applying a detail-oriented mindset to identify and solve problems efficiently under strict deadlines and in high-pressure situations.
- Dependable for both individual and group-based work who reliably completes tasks quickly without jeopardizing quality.
- Skillful at presenting information in a public and professional setting demonstrating exceptional communication and educational skills.

TECHNICAL SKILLS

- **Computer Languages:** Proficient in Swift, Python, JavaScript, MATLAB, and LaTeX.
- **Software Development:** Competent building applications using UIKit and RESTful APIs.
- **Data Analytics:** Experience in statistical analysis using SPSS, Python, and machine learning to Predict and make inferences from data.

SOFTWARE DEVELOPMENT TRAINING

- Python 3 Programming Specialization, Coursera. July 2020
- Data Analysis with Python, Coursera. March 2020

SOFTWARE DEVELOPMENT EXPERIENCE

Quizlet, iOS Engineering Intern June 2022–September 2022

- Project lead for Quizlet's Engagement Widget that displays the user's study streak information using SwiftUI, App Groups, logging, deeplinking, and Figma.
 - Widget received "Most Shippable" and "Crowd Favorite" awards as a hackweek project.
- Contributed to building a redesigned UI behind a feature flag using custom CollectionView cells, compositional layout, RxSwift, and unit testing.
- Built a modular search view to encourage users to find and study new material.
- Added the feature to update the "Quizlet" main logo to reflect the user's subscription status and fixed misaligned elements on the home screen.
- Worked with Git to manage source control, wrote and reviewed pull requests, handled merge conflicts and cherry picking, and learned how to merge and rebase while working on a team

Freelance March 2021–August 2021

- Built *Fireside Locus*, an administrative tool for generating weekly camper schedules for the Luzerne Music Center's Summer Festival.
- Used the React and Django frameworks to build <https://firesidelocus.herokuapp.com/> featuring login functionality for added security.
- *Fireside Locus* generates a weekly PDF schedule for each camper (consisting of multiple weekly lessons, classes, concerts, activities, and meals) and organizes the schedules by camper housing for ease of distribution.
- Developed a companion iOS application to provide mobile access to the web application adding the ability to automate weekly counselor scheduling through an adaptive algorithm for the administrative team reducing schedule generation time from eight hours to one.

DATA, TECH, AND RESEARCH EXPERIENCE

Researcher, University of California, Santa Barbara August 2018–Present

- Build educational applications to assist and challenge students during remote instruction.
- Engineer reliable interactive behavioral experiments using MATLAB, Python, and jsPsych.
- Debug and Perform maintenance on code, identifying and solving any problem quickly and efficiently.
- Write unit tests and scripts for data analysis.
- Collect and clean sensitive experimental data.
- Analyze data using MATLAB, Python, Microsoft Excel, and SPSS.
- Identify novel trends in collected data.
- Present and publish statistical conclusions, hypotheses, and other relevant research findings.

Technical Operations Supervisor, Flying Goat Cellars September 2019–August 2020

- Restructured and perform routine maintenance on the online store.
- Addressed and solve technical problems quickly and efficiently.
- Reformatted database of inventory and sales.

HIGHER EDUCATION EXPERIENCE

Educator, Music Theory Department, University of California, Santa Barbara August 2018–June 2022

- Develop web applications to supplement student learning.
- Wrote a course textbook and instructional videos for remote learning using LaTeX and LilyPond.
- Nominated for the 2021-22 University of California, Santa Barbara, Outstanding Teaching Assistant Award.

PUBLICATIONS AND CONFERENCE PRESENTATIONS

Spectral Atoms: An Expanded Approach to the Analysis of Spectral Music 2019

- <https://medias.ircam.fr/x2f855a>

Spectral Processes in the Music of Alvin Lucier 2017

Reinterpreting the Role of Performer in the Music of Alvin Lucier 2017

- http://www.experimentalmusic.co.uk/emc/Jems_files/bauschlucier.pdf

EDUCATION

University of Louisville, Louisville, Kentucky 2016–2018

M.M., Music Theory

State University of New York at Fredonia, Fredonia, New York 2013–2016

M.M., Music Composition, M.M., Percussion Performance

State University of New York at Fredonia, Fredonia, New York 2009–2013

B.A., Music Composition