Gweneth Stewart

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Havertown, PA

EDUCATION

- **Boston University** *Jan. 2022 - May 2025*
  BA Computer Science Boston, MA
  ○ GPA: 3.43/4.00

PROJECTS

- **Guitar Tuner** *June 2025*
  Tools: [C++, JUCE, Digital Signal Processing]
  ○ Developed a real-time guitar tuner application using autocorrelation to detect pitch from audio signals.
  ○ Accomplished efficient buffer management and latency testing to ensure high accuracy and responsiveness.
  ○ Designed simple and intuitive MacOS GUI in JUCE, emphasizing performance and usability.

- **Collaborative Filtering for Recommendation Systems** *Spring 2024*
  Tools: [Python, Scikit-Learn, NumPy]
  ○ Investigated memory and model-based collaborative filtering techniques
  ○ Used Matrix Factorization, SVD, Stochastic Gradient Descent, and Cosine Similarity
  ○ Benchmarked models on the MovieLens dataset, comparing performance with RMSE.

- **College Kitchen: React Web-app** *Spring 2024*
  Tools: [React, HTML/CSS, JS]
  ○ Built a full-stack web application integrating Spoonacular API, Firebase Realtime Database, and Google OAuth authentication.
  ○ Allows users to discover recipes based on the ingredients in their virtual pantry

SKILLS

- **Programming Languages:** C++, C, Python, Java, JavaScript, Typescript
- **Web Technologies:** HTML/CSS, React, NextJS
- **Database Systems:** MongoDB, SQL, PostgreSQL
- **Data Science & Machine Learning:** NumPy, Scikit-Learn, MatPlotLib, Excel
- **DevOps & Version Control:** Git, Github
- **Specialized Area:** Computer Graphics, Computational Fabrication, Machine Learning
- **Mathematical & Statistical Tools:** Multivariate Calculus, Discrete Math, Algorithms, Probability & Statistics

ACTIVITIES

- **Girls Who Code: Member** *Jan. 2023 - May 2025*
  Boston University
  ○ Created a welcoming environment for women in computer science.
  ○ Introduced new fields of study within computer science to other members.
  ○ Assisted other members with homework and personal projects.

- **Boston University Review: Graphic Design Team** *Jan. 2024 - June 2024*
  Boston University
  ○ Designed the art and layout of our Spring'24 issue.
  ○ Allowed students at BU to have published writing and artwork.
  ○ Collaborated with a team of talented students to complete a polished literature and art magazine.