

Amelia Báez

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EDUCATION

Boston University

Expected May 2027

Bachelor of Arts in Computer Science

Boston, MA

- **Relevant Coursework:** Discrete Math, Linear Algebra, Java, Python, Computer Systems, Probability in Computing, Logic Design
- **Currently Taking:** Analysis of Algorithms, Information Security, Databases

PROJECTS

Convert 2 Binary Game

April 2025

Verilog HDL, Vivado

- Designed and implemented a binary conversion educational game on an FPGA using Verilog
- Integrated a random number generator, switch-based input system, and 7-segment displays to create an interactive experience where users convert decimal numbers to binary
- Developed logic for input validation, real-time score tracking, and hardware-controlled game flow

Interactive 3D Widget

November 2024

Python, Matplotlib, NumPy, Spyder

- Created an interactive Matplotlib widget for manipulating 2D renderings of 3D wireframes
- Implemented functions to perform full transformations and projections using matrices and homogeneous coordinates, ensuring accurate rendering

Sudoku Solver

October 2024

Java, VS Code

- Developed a Sudoku solver in Java utilizes recursive backtracking to efficiently fill in puzzle cells while enforcing Sudoku constraints
- Integrated methods for cell validation, board setup from file input, and dynamic backtracking to handle complex configurations

CERTIFICATIONS

CompTIA A+

August 2025

- Industry-recognized certification validating core IT skills in hardware, software, troubleshooting, networking, and security across a range of devices and operating systems

SKILLS

Languages: Java, Python, C, Verilog HDL, x86 Assembly, Git

Developer Tools: VS Code, Spyder, Vivado, Jupyter Notebook, UNIX, Github

Libraries: Matplotlib, NumPy

Soft Skills: Attention to Detail, Teamwork, Problem Solving, Independent Learning, Proficiency in English and Spanish