

Mason Porter-Brown

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## Education

- 2019-2021 **Bard College** **Annadale-On-Hudson, NY**  
BA (Computer Science)
  - 4.0/4.0 GPA in all Computer Science Courses (Discrete Math, Data Structures, Programming Nature, Design of Programming Languages, Algorithms, Games System, OOP)
- 2017-2019 **The City College of New York** **New York, NY**  
BA (Sonic Arts Program)
  - Studying audio technology led me to investigate building hearing aid software based on harmonic series, sparking interest in computer programming

## Projects

- 2020 **Scheme Interpreter**  
Built a Scheme interpreter using the Swift programming language
  - Successfully interprets the main Scheme functions including Closure functionality
  - Implemented the Visitor Pattern
- 2021 **Berzerk Remake**  
Remake of Atari 2600 Version of "Berzerk" the game
  - Studied source code to understand how the game functions
  - Created a remake of Berzerk using the TIC80 platform and the Lua programming language
- 2021 **Using Postgres as a Cache for MongoDB**  
Undergraduate Senior Thesis
  - Explored caching mongoDB queries and statistics in Postgres
  - Implemented a feature that automatically detects if a new mongoDB query can be satisfied by carrying out Joins, Subsets, or Unions of already cached data
  - Avoids the need to make unnecessary queries to MongoDB servers and successfully increased efficiency of queries

## Technical

- **Languages:** JavaScript, Java, Python, Swift, Scheme, Lua
- **Development tools:** VSCode, Vim, Github, TIC80
- **Other:** Node.js, MongoDB, Postgres, HTML, CSS, React, Express, Max/MSP