

GABRIEL CHARPENTIER

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EDUCATION

The Pennsylvania State University College of Engineering

University Park, PA

Junior, B.S. in Computer Science | Dean's List | GPA: 3.96

Expected June 2024

Relevant Coursework: Data Structures | Algorithms | Big Data | CPU Architecture | Machine Learning

Accolades: One of 12 semifinalists in university-wide public speaking contest regarding technical presentations.

RELEVANT EXPERIENCE

Liberty Mutual Insurance

Remote

TechStart Intern

May 2022 – Aug. 2022

- Streamlined communication between multiple software endpoints through APIs and UI in-order to minimize complexity.
- Implemented unit testing as well as communicating with product owners to ensure product quality stayed consistent.
- Coordinated with and updated colleagues to maintain clarity and quality coding practices in an Agile environment.
- Quickly adapted to and presented improved technology and its benefits to managers, colleagues, and clients.

The Pennsylvania State University

University Park, PA

Learning Assistant

Aug. 2021 – Present

- Lead classes up to 60 students through recitations and teach them important object-oriented-programming foundations.
- Direct office hours in group and one-on-one settings to lead students toward solutions for a variety of problems.
- Quickly pinpoint and solve students' errors as well as guide students towards the solution.

Grader

Jun. 2021 – Aug. 2021

- Analyzed, graded and provided structured feedback on students' coding assignments.
- Attended weekly orientation assignments to maximize effective feedback for students.
- Facilitated communications between students through the means of comments on assignments and message boards.

PROJECTS

Spotify Chat Bot [Python, discord.py]

Aug. 2021 – Oct. 2021

- Created a Discord bot and server that monitors the user's currently-playing Spotify artists.
- Connected users with other listeners of the same artist, enabling them to chat with a mutual interest.
- Utilized Discord's API and Spotify integration to analyze and utilize users' song data; used data to build backend.

Simulated CPU Architecture [Verilog, Mars]

Jan. 2022 – May 2022

- Simulated a five-stage microprocessor capable of processing assembly-level code and loading and storing data.
- Optimized CPU throughput, stalls, and pipeline hazards by integrating multi-threading through forwarding.
- Enabled support for pipelining and contextual stalling between instructions.

Social Justice Game @ HackPSU [Python, TkInter]

Nov. 2020

- Designed and implemented a Jeopardy!-themed game about social justice using Python's TkInter for a hackathon.
- Designed full-stack application, built a GUI as well and designed a database to store users' scores.
- Organized a demo to showcase the game's design and playability to judges and other contestants.

RELEVANT SKILLS

Languages: Python | JavaScript | C++ | C | Java | MatLab

Frameworks/Technologies: React.js | discord.py | Verilog | POV-Ray | AWS Lambda | Jest

CLUBS AND ORGANIZATIONS

Penn State ACM Member

Participate in competitive programming with a focus on optimization of algorithms.

E-Sports Club Operations

Direct and coordinate social events/fundraising opportunities for a club of 120 members.

Collegiate Overwatch Player

Lead, collaborate, and coordinate with teammates to prepare for tournaments.

Croquet Club Operations

Create, manage, and organize club-affiliated community events and merchandise.