

Guillermo Bermejo

Bachelor of Science Computer Science Student

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Education

Bachelor of Science: Computer Science

Stony Brook University – Stony Brook, NY

08/2020 – Present

Relevant Courses

- General:	Data Structures	Object-Oriented Programming	Computer Networking
- Software:	Software Engineering	Fundamentals of Software Development	Compiler Design
- Theoretical:	Analysis of Algorithms	Computational Geometry	Theory of Computation

Minor: Technological Systems Management

3.40 GPA

Projects

Political Gerrymandering State Analyzer – Role: *Front-End Developer*

(01/2022 – 05/2022)

- Full-stack web-application developed by 4 man team. An application designed for analyzing the fairness of a state's previously proposed or enacted political plan based on a calculated 'average' plan. Users can choose a state on the GUI interface, select a plan for analysis and measure the potential of partisan gerrymanders contained within the plan based on various measures. **For more information click [here](#).**
- The Front-End was implemented using JavaScript/HTML/CSS. The implementation and functionality followed the team UML design.
- **Utilized:** JavaScript, GeoJSON, HTML, CSS, Fetch API, Spring Boot, Java, MySQL, JSON Parsing, Python, Frappe, Plotly, Leaflet, LucidChart, Git.

Top 5 Lister

(10/2021 – 12/2021)

- A React-based full-stack web application that allows a user to create or login to an existing account where account information is stored on a database. Users can create new Top 5 lists or delete existing ones. Changes made to user lists are communicated to the server which modifies and updates the database accordingly.
- **Utilized:** React.js, Material UI, Bootstrap, JavaScript, JWT, bcrypt, Node.js, Express, MongoDB, Mongoose, Axios, Postman, LucidChart.

Relevant Experience

Undergraduate Teaching Assistant: CSE 216 (Programming Abstractions)

Stony Brook University – Stony Brook, NY

08/2023 – Present

- Conduct weekly recitation lectures on various computer science topics to groups of 30 students from 160 students total. Teaching styles for the recitation include a mixture of the Demonstrator and Facilitator style with office hours using mainly the Facilitator style.
- Assist in grading assignments and proctoring exams. Hold office hours to discuss and elaborate on topics discussed and lead reviews.
- **Concepts:** Programming paradigms, Object-oriented programming and design, Modularity. **Languages Used:** Java, Python, OCaml.

Research Assistant: PoliTech (SE Teams: Ensemble Generation / Ensemble Cluster Analysis & Visualization)

Stony Brook University – Stony Brook, NY

08/2023 – Present

- Assist in standardizing and maintaining code to run on the 'SeaWulf Cluster' to generate ensembles necessary to move PoliTech forward. Continuously working on building a repository to make ensembles available to Stony Brook University researchers.
- Assist in optimizing transport algorithms for measuring district plan distances and designing cluster display visualization techniques.
- **Concepts:** Graph algorithms, Data visualization, Data mining, Software development. **Technologies Used:** Python, React, DB, SeaWulf, Git.

Technical Skills

- Languages:	Java, Python, JavaScript, HTML, CSS, C, C++, C#, OCaml
- Databases and APIs:	MongoDB, MySQL, Postman, Frappe Charts
- Frameworks and Libraries:	React.js, Node.js, Bootstrap, Material UI, Express, Spring Boot, Axios, Leaflet, Plotly, Chart.js
- Developer Tools:	VS Code, Visual Studio, IntelliJ, PyCharm, Eclipse, Git, GitHub, LucidChart, Figma, Jira, Vim