Tyler Gurth

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EDUCATION

Brown University 4.00/4.00 GPA   Providence, RI | **Expected Graduation May 2025**
Sc.B. in Computer Science, A.B. in History of Art and Architecture
Relevant Courses**:** Introduction to Object Oriented Programming, Program Design with Data Structures and Algorithms, Introduction to Discrete Structures and Probability, Software Engineering
Parsippany Hills High School, 4.81/4.00 GPA *Valedictorian of Class*   Morris Plains, NJ | Class of 2021

RESEARCH

The Virtual Rosetta, *Researcher*   Providence, RI | April 2022 – September 2022
- Researched effective methods for dimensional reduction data visualization such as T-SNE
- Programmed Python web scraping scripts to convert the HTML corpus of data into PNG types and compile datasets
- Generated serialized matrices, minimum spanning trees, and force directed graphs using Python science libraries like SciPy, Sci-Kit Learn, and Pandas
- Visualized complex data in actionable graphs using PyPlot, revealing qualitative trends

WORK EXPERIENCE

Brown University Computer Science, *Head Teaching Assistant*   Providence, RI | September 2022 – Present
- Holds weekly office hours and labs to help students with course material and programming projects
- Assists Professor in grading, designing rubrics, and creating assignments for the course
- Manages a course staff of over 25 TAs, and acts as a touchpoint between the TAs and professor

Escape Garden State, *Technical Developer and Game Master*   Fairfield, NJ | June 2021 – November 2022
- Developed and designed new escape room GUI web app with Vite.js and Google Firebase database
- Streamlined employee tasks by programming a JavaScript Discord bot with time conversion math utils and report generating system
- Trained 5 new employees in how to run rooms, use the company web apps, and open/close the facility

Brown University Admissions, *Tour Guide and Admissions Ambassador*   Providence, RI | April 2022 – Present
- Guides weekly tours through campus, answering questions based on campus knowledge
- Represents Brown as an institution and maintains a positive image for the University

RELEVANT PROJECTS

Scrappy, *Developer*   December 2022
- Used React TypeScript Framework to build out the components of the site, coupled with React Router to create a navigable state system authenticated through Google OAuth
- Developed a Spark API server to query and store information in a MongoDB Java database
- Programmed an NLP sorting algorithm using GloVe English feature vectors to sort posts based on relevant hashtags

LEADERSHIP EXPERIENCE

Brown University Band, *Saxophone Section Leader, Dance Captain, Alumni Liaison*   Providence, RI | December 2021 – Present
- Coaches section throughout sectional rehearsals, ensuring all members are confident in the music to be played
- Accounts for all members of the section, teaching newer members band traditions and marching style
- Maintains relationships with alumni, raises money through fundraising campaigns, issues weekly updates to community

SKILLS & INTERESTS

Technical Skills: React, MongoDB, AWS, Node, Vite, GitHub, Git, Google Firebase, Blender, Photoshop, and Microsoft Office Suite
Programming Languages: Java, Python, JavaScript, HTML, CSS, TypeScript
Languages: English (Native) and Spanish
Interests: Using Artificial Intelligence to replicate, produce, date, and credit artwork. 3D modeling of architectural designs.