

# 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 Coursework:** Object Oriented Programming, Data Structures and Algorithms, Discrete Structures and Probability, Software Engineering, Computer Systems, Statistics, Linear Algebra

## PROFESSIONAL EXPERIENCE

**Billmax**, *Software Engineering Intern*

**Remote | June 2023 – Present**

- Implemented an offline-first cross platform mobile app using Google Flutter and SQLite for service technicians
- Planned UI for mobile app, wireframing mobile-oriented content and components in Figma to improve brand modernity
- Draft API unit tests with SwaggerUI and Postman, connecting new mobile app with existing company endpoints

**Brown University Computer Science**, *Head Teaching Assistant*

**Providence, RI | September 2022 – Present**

- Assist professors by holding weekly office hours, grading, designing rubrics, and creating assignments for the course
- Manage a course staff of over 35 TAs, a class of over 300 students, and act as a touchpoint between the TAs and professor
- Accelerated administrative work by scripting algorithms to create student lab groups and grade thousands of assignments

**Escape Garden State**, *Technical Developer and Game Master*

**Fairfield, NJ | June 2021 – October 2022**

- Developed and designed a 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 reporting system
- Trained 5 new employees in how to open/close the facility, engage with customers, and run escape rooms

**Brown University Admissions**, *Tour Guide and Admissions Ambassador*

**Providence, RI | April 2022 – Present**

- Guide weekly tours through campus to groups of 25-35 people, effectively addressing campus questions and concerns
- Represent Brown as an institution and maintain a positive image for the University as an articulate speaker

## RESEARCH

**The Virtual Rosetta**, *Researcher*

**Providence, RI | April 2022 – September 2023**

- Scripted Python BeautifulSoup web scraping programs to convert the HTML corpus of data into PNGs and compile datasets
- Generated serialized matrices, MSTs, and force directed graphs using Machine Learning and libraries like SciPy and Pandas
- Visualized complex data of over 4000 nodes using dimensional reduction methods such as T-SNE and UMAP
- Contribute as an author to a research publication about the use of data visualization in the emerging digital humanities field

## EXTRACURRICULAR ACTIVITIES

**Brown Track and Field**, *Student Athlete, Student Athlete Representative*

**Providence, RI | September 2021 – Present**

- Compete at the D1 level in the throwing events, representing Brown in the shotput and hammer throw
- Represented the team in the 2022-2023 school year in SAAC, maintaining communication between admin and athletes
- Started a queer athlete social group within the track team, and actively participate in Brown's Student Athlete Gay Alliance

**Brown University Band**, *Saxophone Section Leader, Webmaster, Alumni Liaison*

**Providence, RI | December 2021 – Present**

- Instruct and guide my section of 10 players throughout sectional rehearsals, ensuring optimal performances at sporting events
- Maintain relationships with 600 alumni and spearhead fundraising campaigns that have generated over \$15,000 in donations

**Music101**, *Piano Instructor*

**Providence, RI | December 2022 – Present**

- Volunteer weekly, teaching peers at Brown basic piano skills to help enrich the community through free music lessons

## SKILLS & INTERESTS

**Technical Skills:** React, MongoDB, AWS, Node, GitHub, Git, Firebase, Jest, Figma, Flutter, Photoshop, Google OAuth, and Microsoft Office Suite, Spark, Natural Language Processing, LaTeX, Dimensional Reduction, Data Visualization

**Programming Languages:** Java, Python, JavaScript, HTML, CSS, TypeScript, C, C++, SQLite, SQL, Dart

**Languages:** English (Native) and Spanish

**Interests:** Using Artificial Intelligence to replicate, date, and credit artwork. 3D modeling of architectural designs. Playing piano.