

Ryan Gibbons

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EDUCATION

Princeton University, Princeton, NJ
B.S.E. in Computer Science; Intended Certificate in Linguistics

Expected May 2024
GPA: 3.9; Dept. GPA: 4.0

Freehold Township High School, Freehold, NJ
Honors: National AP Scholar, Mathematics Scholarship

Graduated June 2020
GPA: 5.28 (Weighted)

SKILLS

Languages: ARMv8, C, HTML/CSS, GLSL, Java, JavaScript, Python, R, SQL, Verilog

Tools/Other: Figma, Flask, Git, Heroku, Linux, MATLAB, Microsoft Office, VS Code

WORK EXPERIENCE

COS Grading Manager | *Department of Computer Science, Princeton University* January 2021–Present

- Supervise over 100 undergraduate graders across the core Computer Science sequence, preparing weekly briefs to orient new graders and highlighting learning goals for targeted feedback
- Provide guidance on evaluating student submissions for programming assignments and developing constructive feedback on style and technique as well as run-time and memory efficiency
- Lead a task force to further explain coding concepts to students with serious conceptual misunderstandings

Peer Academic Adviser | *Princeton University* May 2022–Present

- Assist first-year students through the transition to Princeton academics by hosting advising events, leading academic orientation programming, and moderating an online advising course held over discussion boards
- Provide mentorship throughout the year by initiating academic advising study breaks, sending weekly emails to advisees with guidance, and offering individual check-in meetings

Research Assistant | *Princeton Writing Center, Princeton University* May 2021–August 2021

- Used **R** to perform exploratory data analysis after gathering and cleaning pilot data to refine initial research goals
- Conducted a literature review on structural rhetoric to provide context on the current state of the field
- Developed online survey questions to investigate personal research goals proposed in weekly meetings

PROJECTS

Audition Scheduling Website | *COS 333: Advanced Programming Techniques* February 2022–May 2022

- Collaborated with three other students to design and build a website hosted on **Heroku** to allow Princeton's acapella organization to coordinate and schedule auditions
- Developed multiple iterations of profile creation and calendar scheduling systems for three distinct user types, using **Python** with **Flask** as a processing tier and **PostgreSQL** for database management
- Communicated with clients representing the needs of eight participating acapella groups on a weekly basis to clarify design goals and plan new features to implement in the front-end using **JavaScript** with **jQuery**

Driving Simulator Game | *COS 426: Computer Graphics* December 2022

- Developed a web-based first-person 3D driving simulator using computer graphics techniques and frameworks
- Utilized the **JavaScript** libraries **three.js** and **cannon-es.js** as a basis for world rendering and player physics
- Individually focused on simulating and rendering a particle system to represent a moving cloud of fog, and implemented other features including custom shading using **GLSL** and a Heads-Up Display using secondary cameras

Movie Recommender | *COS 401: Introduction to Machine Translation* May 2022

- Applied Natural Language Processing techniques including sentiment analysis, feature clustering, and sentence embeddings to a corpora of movie scripts to create a movie recommender in **Python** using a cosine similarity matrix

Podcast Website Design | *Hoagie Project, Princeton University* February 2021–May 2021

- Collaborated on the front-end design of website for student-run podcast through weekly correspondence with clients to propose and customize new prototypes in **Figma**