

Ari Riggins

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EDUCATION

Bachelor of Arts (A.B.) in Computer Science

Princeton University, Princeton, NJ

May 2023

- GPA: 3.5
- Minor: Visual Arts

SKILLS

Java

Python

JavaScript

HTML

CSS

Unity 3D

C#

Next.js

UI/UX

Figma

Adobe Illustrator

Data Visualization

MatLab

ArcGIS

EXPERIENCE

Research Intern | University of Maryland, TREND REU

Jun - Aug 2020

- Completed the Training and Research Experience in Nonlinear Dynamics at the Institute for Research in Electronic & Applied Physics.
- Mapped large data sets containing thousands of e-scooter trip origin and destinations by geographic sections using MatLab.
- Mapped future e-scooter trips using research groups' predictive methods for estimation.
- Published paper in IEEE can be viewed here: <https://ieeexplore.ieee.org/document/9905516>

Research Intern | Hunter College, VR REU

Jun - Aug 2022

- Created an augmented reality visualization and deployed it as an ios application.
- Investigated the impact of different visualization methods using Unity 3D (ARKit) and C# scripting.
- Worked under the mentorship of Dr. Courtney Cogburn, director of the Cogburn Research group at Columbia University.

Web Developer | ResNFT Trading Platform

- Created a NFT minting and trading platform for deposit based restaurant reservations.
- Organized routing, front-end design, and flow of data from Prisma database to Nextjs app.
- <https://cos-471-resnft.vercel.app/>

Web Developer | TigerMap Web App

- Worked and collaborated on front and back-end to Develop a web app to support a user base of 2,000 engineering students to navigate and locate desired rooms and schedules on campus.
- Routed between building maps to different floors allowing for room number search and clickable navigation using JavaScript and Python.
- Created database using MongoDB by taking information from the university registrar; queried this database to display class schedules for five campus buildings.

Game Developer | 3D Mini Golf Three.js Game

- Collaborated with team to make mini golf web app, linked here: <https://atanastenev.github.io/3dgolf/>
- Project Write-up can be found here: <https://github.com/atanastenev/3dgolf/blob/main/WriteUp.pdf>

Student Fellow | Carl A. Fields Center, Princeton University

2020 - 2023

- Trained to serve as a peer leader advocating for diversity, inclusion, and social justice in the Princeton community.
- Held workshops, providing one-on-one support, and facilitation of discussions.

COURSEWORK

Computational Geometry | COS 451

- Studied the principles of algorithms within geometric computing through the writing of proofs and programs focusing on modeling and statistical analysis.
- Wrote a program to calculate and visualize the equidecomposition of any two polygons.

Advanced Programing Techniques | COS 333

- Learned web development skills such as bootstrap, parallel programing, SQL querying, Mongo Database creation and querying, UI/UX, Documentation, and both front-end and back-end teamwork.

Senior Thesis Project | Augmented Reality Research Study

- Developed and completed research project on the impacts of temperature on AR experiences.
- Created mobile app to display 3D animations triggered alongside physical temperature changes using Unity.
- Set up user study experience and organized space for 10 participants to evaluate the project.

Independent Research | Data Visualization Project

- Completed self-driven research project into the creative, animated visualization of data on racial and gender media representation.
- Webpage with resulting visualizations can be found here: <https://aririggins.github.io/index2>