

# Andrei Bornstein

832-488-8671 – [amborn02@gmail.com](mailto:amborn02@gmail.com) – [linkedin.com/in/andrei-b](https://linkedin.com/in/andrei-b)

Houston, TX

## Education

Worcester Polytechnic Institute	Worcester, MA
<b>B.S. Computer Science</b>	August 2020 – May 2024
• Coursework: Software Engineering, Database Systems, Data Visualization, Data Mining, Advanced Computer Networks, Statistics, Probability	
Houston Community College	Houston, TX

A.A.S., Extended Reality Design and Development	August 2024 – Present
• Coursework: Intro To Extended Reality, Advanced XR Design, Interface Design	

## Skills

<u>Languages:</u> JavaScript/TypeScript, Python, Java, R, C#	<u>Frontend:</u> HTML, CSS, Tailwind, React.js, Next.js
<u>Backend:</u> Node.js, Express.js, FastAPI, REST APIs, NextAuth, OAuth2.0	<u>Databases:</u> SQL Server, PostgreSQL, MySQL/MariaDB, MongoDB, Neo4j, Prisma ORM, Hibernate/JPA

## Certifications

Neo4j Certified Professional – Neo4j, 2023	Graph Data Modeling Fundamentals – Neo4j, 2022
Neo4j Graph Data Science Fundamentals – Neo4j, 2022	SQL For Data Science – Coursera, 2020

## Work Experience

<b>Freelance Full-stack Developer</b>	August 2024 – Present
• Collaborated with clients to plan and design websites and web applications according to discussed features, restrictions, and functional requirements.	
• Designed and developed mobile-optimized front-end user interfaces for sites implemented using HTML, React.js, and CSS/Tailwind.	
• Implemented REST APIs using Express.js, Next.js route handlers, and MongoDB to create backend functions like database CRUD operations, site administrative functions, and account management.	
• Integrated authentication using NextAuth and Google Firebase to create user registration and login, with admin capabilities for authorized admin accounts.	

<b>STEM Teacher – IEEE (TryEngineering)/Rice University</b>   Houston, TX	June 2024 – July 2025
• Taught students the fundamentals of the engineering design process.	
• Introduced students to concepts in AI/machine learning and electrical engineering.	
• Assisted students with developing prototypes for their culminating design engineering projects.	

<b>Software Engineer Intern – Citizens Bank</b>   Johnston, RI	August 2023 – December 2023
• Developed a mock student tuition portal with Next.js, using a Prisma ORM database and NextAuth to simulate student account data and authentication.	
• Integrated data fetched from FDX APIs to visualize loan rates and amortization projections with Chart.js.	
• Used Jenkins, Openshift, Docker to troubleshoot and deploy the application to the internal CI/CD pipeline.	

<b>Data Science Intern – MD Anderson Cancer Center</b>   Houston, TX	June 2021 – January 2022
• Constructed graph data models of clinical cancer trials using Neo4j and Cypher Query Language.	
• Wrote Cypher queries to investigate the relationship between MGMT enzyme methylation and survival time in a cohort of 577 glioblastoma patients.	

## Projects

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### Virtual Reality Event Space

July 2025 – Present

A Virtual/Extended Reality project done in collaboration with the staff of HCC's Reality Collab. The space was created to educate students about the services available through HCC Cares, HCC's program to address the needs of struggling students.

- Developed a virtual space using Unity3D and Spatial SDK for HCC's Enchanted Halloween Event.
- Wrote C# scripts for Unity to create special effects and character animation utilities.
- Designed areas and quests to engage and immerse students in the virtual world while informing them about HCC Cares services.

### Lead Backend Developer - Hospital Navigation and Service Request Application

January 2023 – March 2023

Brigham & Women's Hospital / WPI

- Led development of the Java application's relational database with Hibernate ORM and PostgreSQL, including in-application data migration tools for uploading CSV data.
- Designed UML class diagrams and ERDs to document the class structure and database schema of the application during the development process.
- Used JavaFX and Hibernate queries to create an automatic edge repair algorithm for map editor nodes, a feature that was never seen in previous teams' projects.

### Full Stack Developer - Sinatra

March 2025 – August 2025

An application that makes use of the Spotify API to give breakdowns of frequently listened songs and genre categories.

- Developed REST APIs in Python (FastAPI) and integrated Spotify's OAuth2.0 workflow for secure user access.
- Built user session and data management system using MongoDB, including error handling to maintain data integrity.