# Brennan Benson

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#### **EDUCATION**

#### Northwestern University

Evanston, IL

Bachelor of Science in Computer Science, Minor in Data Science & Engineering

June 2025 (anticipated)

- GPA: 3.877/4.00, Major GPA: 4.00, Honors (8 quarters)
- Relevant Coursework: Data Structures & Algorithms, Computer Systems, Operating Systems, Programming Languages, Scalable Software Architectures, Data Engineering, Statistics, Machine Learning, Networking

#### EXPERIENCE

## Software Engineering Intern

Jun 2024 – Aug 2024

Bank of New York

Pittsburgh, PA

- $\bullet$  Built full-stack C# app to generate report for equity indexing portfolio management team with >\$500B in assets
- Collaborated with BlackRock experts and portfolio managers to implement algorithms that calculate cash metrics like unequitized, total, and spendable cash by calling Aladdin APIs to retrieve position and intraday trade data
- Deployed autosys job to email & store report run 3x daily, saving each of 30 managers 1.5 hours every day
- Developed TypeScript+AngularJS GridAPI front-end, enabling managers to regenerate report and view past ones
- Parallelized data requesting & processing by batching portfolios, reducing report creation time by 15x

## Software Engineering Intern

Jun 2022 – Sep 2023

Atlas Reality, Inc.

Evanston, IL (Remote)

- Implemented >30 features across 5 microservices in asynchronous .NET C# Orleans code of >60k active user augmented reality mobile game in which users can purchase and trade plots of land in the real world
- Led development of 8 new webpages for admin application according to CTO and customer service team's broadly defined specifications, integral to team's operations and used daily to resolve player requests
- Created technical design documents and collaborated with QA to develop unit & integration tests for each feature
- Solved player location spoofing issue by applying speed-checking algorithm to land purchase NoSQL data
- Enabled customer service team to verify in-app purchase receipts by automating calling the Apple App Store API
- Worked part-time over the school year to develop front-end visuals for financial transaction data using balance vs time graphs and interactive Azure Maps, allowing administrators to easily find suspicious players

# Founding Team Member & Technical Lead

Feb  $2021 - Jun \ 2024$ 

Leva (Startup in the Garage at Northwestern)

Evanston, IL

- Led coding team of B2B software startup designed to empower women in the workplace through mentorship
- $\hbox{$\bullet$ Individually built Python Flask web app MVP with AWS RDS, S3, and Elastic Beanstalk, then recruited \& mentored 2 team members to help transition front-end from HTML/CSS/JavaScript to ReactJS } \\$
- Designed algorithm to rank each mentee's potential mentors by shared hobbies, career interests, and education
- Streamlined matching process by creating a React admin webpage for program managers to view each potential pair's shared traits and assign each mentee one or more mentors
- Employed Agile methods to direct development timeline for >50 user beta test, achieving 0 reported bugs
- Implemented business-tailored meeting timeline and note-taking to improve user retention after matching process

#### Projects

Gardening Networking Game | Java, C#, Spring Boot, Unity, MySQL, AWS

Aug 2024 – Present

- Gamifying network management by representing connections as plants that grow through consistent outreach
- Developing React frontend and thoroughly tested Java Spring Boot REST API, using AWS for database & hosting

Music Matchmaker, What2Eat | Google Firebase, GCP, NoSQL, ReactJS

Oct 2023 - Dec 2023

- Applied agile methods (swarms, retrospectives, continuous delivery) in team of 5 to deliver 2 React apps in 6 weeks
- Music Matchmaker: promoting (safe) concertgoing through a platform for finding events & chatting with attendees
- What2Eat: reducing food waste by recommending recipes from a NoSQL database based on users' ingredients

#### TECHNICAL SKILLS

Languages: Python, C#, C++, Java, JavaScript, HTML, CSS, Typescript, SQL

Technologies: .NET, Spring Boot, GraphQL, AWS (RDS, EC2, S3), React, Angular, Spark, SQLAlchemy, Django

Developer Tools: Git (+ Git CI/CD), Azure DevOps (CI/CD), Figma, Google Firebase, GCP