

# Benjamin Hardy

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## EDUCATION

Texas A&M University College Station, TX - Bachelor of Science in Computer Science

GPA: 3.8 | Graduation Dec 2026

## SKILLS

- Languages: Java, Python, C++, JavaScript, C#, HTML, CSS.
- Frameworks: React.js, React Native, Express.js, Python Flask, Java Spring Boot, ASP.NET Core (Blazor, Web API).
- Technologies: PostgreSQL, Microsoft SQL Server, Docker, AWS, Postman, Git, Excel/VBA, Selenium, Microcontrollers.

## PROFESSIONAL EXPERIENCE

### Software Engineering Intern

NCR Atleos

May 2024 - August 2024

- Architected an interactive document editing platform streamlining the creation and management of API documentation, automatically generating interactive, client-facing web portals for ReadyCode API, serving clients such as **Payfare** for **DoorDash**.
- Leveraged **ASP.NET Core** with **Blazor**, a **RESTful Web API**, and **SQL Server** to optimize functionality and data management.
- Developed **AI/ML models** to evaluate ATM transaction volumes by integrating real-time data with historical trends, delivering actionable insights into anomalies and predictive forecasting using **ML.NET** and **Python**.

### Software Development Intern

E3 Integral Solutions

June 2023 - August 2023

- Optimized data extraction processes through advanced web scraping using **Python Requests**, **BeautifulSoup4**, and **Selenium**, achieving a **78%** increase in data retrieval accuracy for daily thermostat readings.
- Engineered a relational database in **Microsoft SQL Server** to efficiently store and map over **30,000** daily thermostat records, integrating with report generation software to support comprehensive data analysis via **Excel** and **VBA**.

## PROJECTS

### Goal Setting Mobile App

January 2024

*Designed a social network mobile app to allow users to track progress in their goals while competing with friends.*

- Developed a user friendly front end featuring account creation, adding friends, and goal posting functionality using **React Native**.
- Crafted a secure **RESTful API** using **Node.js**, **Express.js**, and **PostgreSQL**, implementing **JWTs** for user data retrieval.
- Deployed a containerized API and database on **AWS EC2** using **Docker**, achieving reliable and scalable cloud performance.

### Custom Notification Website

June 2023 - August 2023

*Pioneered a website to allow users to create custom notifications based on changes in other websites' contents.*

- Constructed a **React.js** front-end and integrated a robust **RESTful API** using **Python Flask** and **SQLAlchemy**, implementing secure **JWT** authentication, **CORS** protocols, and **OpenAI API** integration.
- Utilized **Python Requests**, multithreading, and rotated proxies to ensure efficient data retrieval and enhanced performance.

### Java Full Stack Platform Game

May 2023 - July 2023

*Directed a team project building a full stack Java platform game from scratch.*

- Devised a **Java Swing** platform game from scratch including all animations, physics, and game states using complex classes and OOP principles.
- Established a **RESTful API** with **Spring MVC** and **Spring Data** using **Java Spring Boot** to retrieve information about each user's scores.

### Foot Controlled Computer Keyboard

August 2022 - July 2023

*Spearheaded a fully functional computer keyboard designed to be used by the feet for individuals lacking upper body extremities.*

- Built a foot-operated keyboard with an **Arduino** using **C++**, joysticks, and other electronic circuitry featuring a GUI using **Python**, **SQLite3**, implemented with multithreading, serial port communication, and customizable layouts.
- Conducted comprehensive testing and optimization efforts to test keyboard latency, enhance program storage space by **33%**, memory utilization by **45%**, overall product usability, and ergonomic comfort within the project scope.

### Language Translator AR Glasses

October 2021 - December 2021

*Prototyped Augmented Reality (AR) glasses to allow real time language translation using voice recognition and optical character recognition (OCR).*

- Constructed a device utilizing a **Raspberry Pi** to respond to voice commands translating any language into the user's language of choice utilizing **AI/ML APIs** for voice recognition, language translation, and optical character recognition (OCR).

## LEADERSHIP

### AGGIE FLASH - Mentor for Freshman Led Organization

September 2023 - Present

- Hosted resume workshops, linkedin workshops, professional headshots, and service events for **150+ people**.
- Collaborated with Twin City Mission on initiatives including hosting a **5K charity run** and **highway clean-ups** to fundraise for the philanthropy.