

# Euan Ham

Atlanta, GA | 470-878-9119 | [euanham05@gmail.com](mailto:euanham05@gmail.com) | [linkedin.com/in/euanham](https://www.linkedin.com/in/euanham) | [github.com/euanham](https://github.com/euanham) | [euan.vercel.app](https://euan.vercel.app) | US Citizen

## EDUCATION

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### Georgia Institute of Technology

Atlanta, GA

*Bachelor of Science in Computer Science, Minor in Linguistics - 3.66/4.0 GPA*

*Expected Graduation, May 2027*

**Relevant Coursework:** Data Structures & Algorithms, Machine Learning, Natural Language Processing, Object-oriented Programming, Design & Analysis of Algorithms, Computer Graphics, Linear Algebra

## EXPERIENCE

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### Software Engineering Intern (Incoming)

May 2026 – July 2026

*Advance Auto Parts*

*Raleigh, NC*

- Selected to design a reservation engine with constraint satisfaction solvers and handling for simultaneous bookings

### Developer

January 2026 – Present

*Bits Of Good (Hack4Impact)*

*Atlanta, GA*

- Implementing 5+ user-facing features including breakpoints and game components with backend state logic
- Engineering persistent login authentication and Next.js async cookie generation, resolving session timeout errors
- Designing an API handling daily game reward streaks with an HTTP client and integrating to game components

### Undergraduate Researcher

August 2024 – Present

*Georgia Institute of Technology*

*Atlanta, GA*

- Training Word2Vec embeddings on 500,000+ tokens and applies PCA using NLTK, GenSim, and Scikit-learn
- Merging data from Praat, Bedword, and Qualtrics, contributing to clean datasets for statistical analysis
- Analyzing phonetic variation of 200+ speakers with R to process vowel production and run linear regression models

### Data Coordinator

May 2024 – December 2024

*Georgia Tech Alumni Association*

*Atlanta, GA*

- Automated a system to analyze data from 200,000+ rows, improving accuracy and reducing manual review time
- Managed and maintained the organization's BlackBaud CRM while ensuring data compliance and security
- Performed data entry and extraction while implementing automated workflows using Python and Excel

## PROJECTS

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### Animal Training Management | TypeScript, Next.js, Node.js, MongoDB, JWT, REST API

November 2025

- Engineered 10+ RESTful API endpoints with pagination for MongoDB data retrieval and user auth
- Implemented JWT authentication with Argon2 password hashing for secure user session management via cookies
- Designed MongoDB database schema and validation logic and integrated frontend and backend features

### Threeify | React, Node.js, Three.js, Firebase, OAuth, Spotify Web Playback SDK

May 2025 – August 2025

- Developed a React web record player integrated with Spotify's Web Playback SDK for real-time music playback
- Implemented a secure PKCE authentication flow and Firebase Cloud Firestore with 99.9% session reliability
- Developed a Firebase library with search, addition, and removal with an album to disc partitioning algorithm
- Modeled 4 assets in Blender and applied textures, optimizing positioning with bounding box calculations

### RecipeRec | Python, ResNet50, PyTorch, scikit-learn, NumPy

August 2025 – December 2025

- Developed a convolutional neural network using ResNet50's 2048-dimensional embeddings for visual recipe results
- Achieved 91% hit rate at k=10, with MRR of 0.490 indicating first relevant recipe appears 2nd position on average
- Engineered embedding space evaluation framework for space/recommendation quality, stability, and precision
- Yielded 92% neighborhood stability under noise perturbation, proving embedding space robustness

### Mizuya API | Next.js, AWS (Lambda, EventBridge), MongoDB, REST API, BeautifulSoup4

December 2025 – Present

- Engineering an AWS EventBridge & Lambda web scraping RESTful API, reducing memory usage 70%
- Architecting a full-stack Next.js dashboard to track product inventory and pricing history

## SKILLS

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**Languages:** Java, Python, TypeScript, JavaScript, C#, HTML, CSS, GLSL

**Frameworks:** Next.js, React, Tailwind, Node, Three.js, p5.js, PyTorch, SpaCy, NumPy, Pandas, REST APIs

**Tools:** MongoDB, Firebase, AWS (Lambda, EventBridge, DynamoDB), Docker, Postman, Android Studio, Git