

Ethan P. Bonsall

Camp Hill, PA • Chapel Hill, NC

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PROFESSIONAL SUMMARY

Computer Science senior at the University of North Carolina at Chapel Hill (GPA: 3.7) with hands-on experience in software engineering, data engineering, AI/ML, and full-stack web development. Skilled in building intelligent applications using OpenAI APIs, TensorFlow, and Python, alongside strong proficiency in Java and C++ through multiple software development courses. Experienced with modern frameworks (Next.js, Angular, React) and databases (SQL, Supabase, Databricks), with a proven track record of delivering scalable web apps, secure data pipelines, and optimized user experiences. Demonstrated success in branding, UI/UX design, and deploying professional websites for clients. Strong collaborator in Agile environments with emphasis on clean code, test-driven development, and high data quality standards.

EDUCATION

University of North Carolina at Chapel Hill — *Bachelor of Science in Computer Science* (Expected May 2026)

GPA: 3.7

Relevant Courses: Modern Web Programming, Foundations of Software Engineering, Software Engineering Lab, Algorithms, Systems Fundamentals

Activities: AI Club (workshops + AI project development), CSSG (nonprofit web development projects)

Projects:

- **AI Chatbot for UNC CS Program** — Built Angular-based chatbot using OpenAI API, TypeScript, and Python to manage course queries, office hour reservations, and study hall bookings in natural language.
 - **Medical Imaging Classifier** — Trained a CNN using TensorFlow. CNN utilized augmentation, dropout, convolution blocks, dense layers, and flattening to classify skin blemishes using medical image datasets; received UNC award recognition.
 - **Dietitian Formula Management System** — Developed HIPAA-compliant Next.js + TypeScript + Tailwind web app for nutrient calculations, patient data management, and secure formula tracking.
 - **Study Buddy Collaboration Platform** — Engineered full-stack web app with Next.js, Supabase Realtime, SQL, and Tailwind for real-time note editing, chat, PDF export, and secure authentication.
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WORK EXPERIENCE

Associate Software Developer — Sheetz (*Aug 2025 – Present*)

- Built automated SQL and Python testing frameworks to protect data integrity across enterprise systems.
- Enhanced ETL pipelines, enforced data standards, and improved reliability for 2,000+ production tables.
- Collaborated in Agile teams to deliver scalable data engineering solutions.
- Technologies: SQL, Python, Databricks

Associate Software Developer Intern — Sheetz (*May 2025 – Aug 2025*)

- Automated SQL/Python scripts to validate pipelines and enforce enterprise data quality standards.
- Optimized analytics workflows and improved data reliability across multiple business domains.
- Technologies: SQL, Python, Databricks

Full-Stack Web Developer — ethanbonsall.com (*May 2023 – Present*)

- Designed, built, and deployed two professional websites: magichourportraits.com (photography) and bonsaipropertycare.com (property care).
- Focused on **branding, UI/UX, and secure data storage**, integrating Supabase for backend functionality.
- Improved client engagement and visibility with optimized layouts, custom styling, and SEO-friendly design.
- Technologies: Next.js, Tailwind CSS, Supabase, Vercel, TypeScript

Web Developer — UNC Computer Science + Social Good (*Aug 2024 – Present*)

- Built nonprofit web apps using React, Supabase, and NW.js to support community initiatives.
- Created a Tinder-style platform for animal adoption, increasing engagement and adoption rates.
- Technologies: React, Supabase, NW.js, JavaScript, HTML5, CSS3

SKILLS

Programming Languages: Java, Python, SQL, C++, JavaScript, TypeScript

AI/ML Tools: OpenAI API, TensorFlow, CNNs, Prompt Engineering

Frameworks & Tools: Next.js, Angular, React, Tailwind CSS, NW.js, Supabase, Vercel

Data Tools: Databricks, Tableau, Microsoft Excel, Google Sheets

Web Platforms: Wix, WordPress

Methodologies: Agile/Scrum, Test-Driven Development (TDD), Version Control (Git/GitHub)