George Harris

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EDUCATION

University of North Carolina - Chapel Hill – GPA: 3.79/4   Chapel Hill, NC
Bachelor of Science in Computer Science, Bachelor of Arts in Mathematics   *2022 – 2026*
Relevant Coursework: Machine Learning, Advanced Linear Algebra for ML, Probability, Data Structures and Algorithms, Discrete Math, Math for Data Science, Linear Algebra, Real Analysis, Computer Networks
Organizations: Carolina Choir, ACM UNC, CS+Social Good, AI@UNC
Awards and Experiences: Demo Abstract - ACM Sensys Irvine May 2025, MongoDB Next-In-Tech Invitational Summit - 2024, Best Junior Hack - HackNC 2022

Universidad Carlos III de Madrid - Study Abroad   Madrid, Spain
Coursework: Differential Equations, Statistics, Computer Networks, Formal Language Theory   *Aug 2024 – Dec 2024*

PROFESSIONAL EXPERIENCE

Incoming Software Engineer Intern   June 2025 – August 2025
MongoDB   *New York City, NY*

Undergraduate AI Researcher   Dec 2023 – Present
University of North Carolina Embedded Intelligence Lab   *Chapel Hill, NC*
- Led a published mentored research project in AI mobile device operation with human strategy adherence. Designed agentic system to operate Android devices over USB-C using ADB, OpenAI, Gemini API. Measured cosine-similarity over embedded user-strategies and model outputs to quantify model compliance. Demo abstract and showcase accepted for Sensys 2025.
- Researched WIFI CSI and deep learning for medical applications as a member of the AURA Project under Professor Shahriar Nirjon and Ph.D. researcher. Built analytics dashboard from the ground up for use at FSU and UTSA Schools of Nursing.

Software Engineer - Internship   May 2024 – Aug 2024
Momentus Technologies   *Remote/Knoxville, TN*
- Researched and built company's first semantic search/RAG application in Python. Used Semantic Kernel, OpenAI, Qdrant Vector Database to create event search system, allowing users to efficiently search over 75000 events with natural language.
- Converted front end from Vue 2 to 3, affecting customer experience for 60,000 corporate clients. Designed maintainable tests using Vitest and Jest, Dockerfiles, and GitHub actions. Provided POC for overhauled global state management using Vue Composables. Wrote docs detailing test patterns for state system.

Software Engineer - Internship   May 2023 – Aug 2023
TradePending   *Remote/Carrboro, NC*
- Shipped features as the primary engineer for a dashboard facing over 3000 dealership clients, built in React and using Redux Toolkit for global state management. Implemented RESTful RTK Query API with a MongoDB database.
- Took 6+ feature pages from mock-ups all the way to production, including user management, billing/contracts management, user settings. Ensured secure user role validation for data access, and designed dynamic menus based on user authorization.

LEADERSHIP AND INVOLVEMENT

VP of Education, Founder of CS+SG Labs   July 2024 – Present
CS + Social Good UNC   *Chapel Hill, NC*
- Taught a class of 50+ UNC students in JavaScript, Next.js, SQL. Orchestrated member events as a member of the exec board and streamlined new member training, increasing student final submission by 38% YOY.
- Founded Labs sector of CS+SG, the goal of which is to perform project planning, market research, and technical consulting services for nonprofit clients, and organize special projects teams.
- Former Education Team TA, Executive Board Member, Full Stack Developer

Founding Data Analyst   Aug 2023 – May 2024
Biokind Analytics – University of North Carolina   *Chapel Hill, NC*
- Worked as a founding analyst of the UNC chapter of Biokind Analytics, an organization offering analytics for healthcare partners. Analyzed and visualized data of marathon runners using Python, boosting retention of participants by 12% YOY.

PROJECTS

AURA – Research Project | **Github** | *Next.JS, Chart.js, Vercel, Heroku, MongoDB*   Jan 2024 - May 2024
- Built Next.js website and a data processing service using MongoDB for patient analytics visualizations, used by doctors across partner Universities.
- Designed API handling over 28800 data points in under 3 seconds for any selected day. Used by doctors, nurses, patients for clinical trials at Florida State and UTSA hospitals with the UNC Embedded Intelligence Lab.

TECHNICAL SKILLS AND AWARDS

Languages/DBs: Java, Python, JavaScript, HTML, TypeScript, MongoDB, Postgres, Qdrant
Frameworks: React, Vue, Next.js, Node.js, Pytorch, Semantic Kernel,
Libraries and Packages: OpenAI API, Pandas, NumPy, scikit-learn, Mongoose, Matplotlib, Chart.js,
Development Tools: Github, Docker, Linux, Jupyter, Vercel, Heroku, Postman