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, Minor in Statistics   *2022 – 2026*
Relevant Coursework: Computer Organization, Systems Fundamentals, Data Structures and Analysis, Foundations of Programming, Discrete Mathematics, Math for Data Science, Linear Algebra, Intro to Probability, Calculus I & II
Organizations: Carolina Choir, ACM UNC, CS+Social Good, Biokind, Student Gov Executive Branch, AI@UNC, Busi-Tech
Awards and Experiences: Best Junior Hack - HackNC 2022, MongoDB Next-In-Tech Invitational Summit - 2024

PROFESSIONAL EXPERIENCE

Software Engineer - Internship   May 2024 – Present
Momentus Technologies   *Remote/Knoxville, TN*
- Converted client views in event management platform from Vue 2 to Vue 3, affecting customer experience for 60,000 corporate clients. Designed reliable, maintainable test suite using Vitest and Jest. Wrote Dockerfiles for microservice containerization and implemented GitHub actions to ensure testing is run on future builds.
- Researched, provided proof of concept for, and overhauled state management using Vue Composables and Pinia stores, reducing performance overhead by 12%. Wrote detailed internal documents detailing testing patterns for state system.
- Refactored HTML/Template to PDF service and data pipeline, reducing PDF render times by 32%. Leveraged Puppeteer and Cheerio for PDF and HTML DOM editing. Rebuilt C# options factories to conform to new data models.

Undergraduate Researcher   Dec 2023 – Present
University of North Carolina   *Chapel Hill, NC*
- 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 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, optimized to reduce excess data transfer by 23%.
- Took 6+ features 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

Treasurer   Jan 2024 – Present
ACM at Carolina   *Chapel Hill, NC*
- Raised funds to enable various networking and enrichment events for ACM at Carolina members, submitted budget requests and worked with the UNC CS department to arrange funding. Served as a member of the Executive Board.

Founding 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.

Education Team Instructor, Executive Board Member, Full Stack Developer   Dec. 2022 – Present
CS + Social Good UNC   *Chapel Hill, NC*
- Instructed 50+ students in hands-on development with TypeScript, React, PostgreSQL, and Supabase using GitHub Classroom. Orchestrated impactful member events as a member of the board and streamlined new member training.

PROJECTS

AURA – Research Project | **Github** | *Next.JS, Chart.js, Vercel, Heroku, MongoDB*   Jan 2024 - May 2024
- Created custom Next.js frontend and data processing service using JS, MongoDB with Chart.js for a technical patient study. Leveraged Vercel server functions for increased render and chart performance.
- 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.

RiceSavers – HackNC 2022 Project | **Github** | *Python, Jupyter, HTML, Javascript, Keras, TensorFlow, Yarn*   Nov 2022
- Engineered and deployed a TensorFlow and Keras computer vision model to detect disease in uploaded images of rice crops with over 80% success rate. Built a simple HTML and JS front end with image submission. Awarded Best Junior Hack 2022.

Personal Portfolio – GeorgeHarris.tech | *Typescript, NextJS, TailwindCSS, Vercel*

TECHNICAL SKILLS AND AWARDS

Languages/DBs: Java, Python, C, JavaScript, HTML, CSS, TypeScript, C#, SQL, Supabase, RavenDB, MongoDB, Postgres
Frameworks: React, Vue, RTK Query, Next.js, TensorFlow, Keras, Pytorch, Pytorch Lightning, TailwindCSS
Development Tools: Github, Docker, Linux, Jupyter Notebook, Maven, Vercel, Heroku, Postman, AWS Cognito/IAM, Node.js
Libraries and Packages: Mongoose, Pandas, NumPy, Matplotlib, SKLearn, Chart.js, JUnit, JavaFX, Cheerio, Puppeteer