Sandith Ganhewage

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EDUCATION

Duke University — Durham, NC
Bachelor's in Computer Science and Electrical & Computer Engineering — Expected Grad: May 2027
- GPA: 4.00/4.00, Dean's List with Distinction (F24, S25), J. Welch Hariss Scholar
- Relevant Coursework: Engineering Design & Communication, Data Structures & Algorithms, Computer Architecture, Linear Algebra, Fundamentals of Electrical & Computer Engineering

EXPERIENCE

Software Engineering Intern — Aug. 2025 – Sep. 2025
narb Inc. — Remote
- Designed user application for multi-modal LLM technology, utilizing Convex for a 30% increase in development speed
- Developed in React and React Native to develop a cross-platform front end solution, increasing overall usability
- Migrated existing applications to a new cross-platform framework prioritizing rapid development and implementation

Embedded Systems Engineering Intern — May 2025 – Aug. 2025
Qorvo Inc. — Greensboro, NC
- Designed an embedded systems solution to chip sorting with the Synax S9 Handler, reducing configuration time by 25%
- Deployed company-wide solution for 50+ employees through an intranet-hosted web interface with React and Node.js
- Implemented low-level Arduino GPIB interface, alongside a Raspberry Pi connecting to universal web UI via bluetooth

Undergraduate Researcher — Jan. 2025 – May 2025
Duke Center for Computational and Evolutionary Intelligence — Durham, NC
- Tested and researched machine learning model quantization and distillation techniques to reduce model size by up to 30% and inference latency by up to 10% while maintaining model accuracy using PyTorch libraries
- Researched genome-sequencing-focused applications in 5 established bioinformatics algorithms for increased efficiency through hardware acceleration by tri-state CAMs (content addressable memory)

PROJECTS

MeetUp | *React, React Native, Tailwind CSS, Convex, Clerk, Google/Outlook OAuth*
- Developed cross-platform application directly integrating popular calendar accounts for simplifying scheduling
- Implemented grouping functionality to provide support for dynamic scheduling, with unified profile to accelerate setup
- Secure user authentication with 3rd party integration using Clerk and combined backend and database through Convex
- Designed privacy features to configure the level of data shared by each user, adjustable for different groups

SmartStudy | *React, Node.js, MongoDB, Vercel, Tailwind CSS, Axios, FastAPI*
- Built full-stack web application allowing users to upload materials, generating 5+ types of study content with AI
- Integrated MongoDB and bcryptjs for secure user authentication and file storage to organize and edit study materials
- Developed FastAPI service with open-source LLM, reducing model size by 20% by chunking and prompt engineering
- Implemented Vercel for app hosting, securely exposing public features while protecting sensitive server-side information

Home Lab | *Debian, SSH, Tailscale, Docker, CasaOS*
- Designed fully functional home server for 20% of the cost of commercial products utilizing headless Debian Linux system
- Configured remote access to the server with Tailscale VPN, allowing for access to network-attached storage and access to other devices on the network, also establishing a secure exit node for secure browsing on unprotected public networks
- Implemented user-friendly web UI, allowing for account-based access to web applications hosted by docker containers

EXTRACURRICULARS

narbhacks – *Hackathon*, Remote	Jul. 2025
Duke Catalyst – *Pre-professional Tech Society*, Durham, NC	Jan. 2025 – Present
Duke Applied Machine Learning – *Hardware Division*, Durham, NC	Sep. 2024 – Dec. 2024
Duke Dhamaka – *Treasurer*, Durham, NC	Sep. 2024 – Present
Joint School of Nanoscience and Nanoengineering – *Research Intern*, Greensboro, NC	Jul. 2023 – Jan. 2024

TECHNICAL SKILLS

Languages: Java, Python, Javascript/Typescript, C, C++, HTML/CSS, MIPS
Technologies: React/Next.js, Tailwind, Node.js, Docker, MongoDB, SQL, Firebase, Tailscale, Axios, Vercel, AWS
Skills: Data Structures & Algorithms, Git/Github, Machine Learning, Embedded Systems, CI/CD, System Design