

Steven Gu

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EDUCATION

M.S. Computer Science — Northwestern University

Expected JUN 2024

B.A. Biological Sciences — Northwestern University

Expected JUN 2024

GPA — 3.78/4.00

Coursework — Agile Prototyping, Data Structures & Algorithms, Scalable Software Architectures (AWS), HCI (UI/UX)

SKILLS

Programming Languages	Python, JavaScript, TypeScript, C#, C++, C, R
Frontend	React, Remix, HTML/CSS, Bootstrap, MUI
Backend / Dev Ops	SQL, MongoDB, Firebase, AWS/EC2, Flask, Express, Node.js, Cypress, Vitest
Other	Git, Linux, Bash, Unity, Agile Development

TECHNICAL EXPERIENCE

New Muses Project — Software Engineering Intern

JULY 2023 — OCT 2023

- Designed a reusable Remix component library adhering to design specifications to streamline and standardize future webpage development.
- Created and reviewed GitHub Issues and PRs to milestone project progress.
- Developed Flask-based backend APIs for effective front-end to MongoDB interaction. Automated database backup with a crontab scheduled Python script, with comprehensive emails upon completion.

Campus Kitchen Management System — Software Engineer

APR 2023 — JUN 2023

- Led development on a full-stack web application using React frontend and Node.js/Express backend to manage food inventory, shift records, and user records for Northwestern University's Campus Kitchen.
- Deployed scalable backend infrastructure to AWS, using S3, RDS, and IAM services to support data storage, processing, and user access permissions.
- Led research and design sprints to gather user feedback on prototypes, resulting in clearer understandings of user needs and improved user-centered UI/UX designs.

PROJECTS

Crafty — Developer

SEP 2023 — DEC 2023

- Built a GPT-powered webservice dedicated to assisting users in crafting woodworking projects by providing users with instructions, materials, and purchase links given a query (e.g. "coffee table").
- Integrated GPT function calling to prompt webscraping and Home Depot API calls on corresponding queries.

PhotoApp — Developer

APR 2023 — JUN 2023

- Developed a multi-tier photo storage app by integrating a Python client, a Node.js/Express.js-based webservice, and AWS.
- Implemented EC2, S3, and RDS for image storage, achieving efficient scalability and database management.
- Developed and fully documented RESTful backend API for the webservice.

Network Scanner — Developer

MAR 2023

- Wrote a Python tool to perform comprehensive network and security assessments of website domains.
- Utilized the subprocess module to extract key network information, including TLS versions, root CA's, and rDNS names, using command-line arguments within the script.

AWARDS & ACTIVITIES

Northwestern University Summer Internship Grant Program, 1/339 recipients

JUN 2022, JUN 2023

Dean's List — Northwestern University, 6 academic sessions

SEP 2020—Present