

Elizabeth Ho

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Education

University of Virginia Polytechnic Institute
BS in Computer Science (3.85/4.0)

Aug 2024 – May 2027

Coursework: Software Design and Data Structures, Introduction to Software Design, Computer Organization I & II, Introduction to Problem Solving, Cloud Computing, Intermediate Software Design and Engineering

Experience

Software Engineering Intern

Seattle, WA

Amazon Web Services (AWS)

May 2025 – Aug 2025

Tools: AWS Lambda, S3, Athena, Step Functions, CloudWatch, EventBridge, RDS, DynamoDB

- Developed an **AWS-based automation tool** that reduced a 24-hour manual certificate update process to **2 minutes** using **multithreading** and **parallel processing**, saving one developer-month per newly launched region.
- Delivered a presentation to **30+ team members** and was subsequently invited to present organization-wide within **AWS Cryptography**, earning recognition for demonstrating AWS Leadership Principles.
- Identified and resolved a **5-year-old database bug**, implementing a permanent company-wide fix and creating detailed documentation to ensure long-term maintainability and knowledge sharing.

Research Assistant

Blacksburg, VA

Virginia Tech Research Group

Sep 2025 – Present

- Conducting research on how **friend-like AI communication** affects student learning using the **Google Gemini API**, designing surveys, analyzing data with **Python**, and collaborating with PhD students on **LLM research**.

Product Manager & Software Engineer

Blacksburg, VA

Virginia Tech Development App Team

Sep 2025 – Present

- Leading a team of six developers to design and build the **official team website** using **Next.js, React, and Tailwind CSS** while defining product goals and managing project requirements, code reviews, and Git workflow.

Web developer

Blacksburg, VA

Virginia Tech Society of Asian American Engineers

Sep 2024 – Sep 2025

- Built and maintained the official **SASE website** using **React, HTML/CSS, and JavaScript**, working with the web team to improve site responsiveness while ensuring clean, maintainable code.

Math and Computer Science Tutor (Volunteer)

Aldie, VA

Unity Learning

Jun 2020 – Aug 2024

Projects

Weather-I-Go

NASA Space Apps Challenge, Oct 2025

- Developed **Weather-I-Go**, a mobile app that uses **NASA climate data** and **AI** to describe weather in natural language and predict conditions up to the year 2100 based on users' "perfect weather" preferences.
- Built a **full-stack geospatial data pipeline** with **React Native (Expo)**, **Node.js**, and **Firebase**, integrating **NASA POWER** and **Meteomatics APIs** while collaborating with four other team members.

SummaNotes

VTHacks 13, Oct 2025

- Developed a **Chrome extension** that simplifies text comprehension with instant **AI summaries** and **text-to-speech** when users highlight text, enhancing accessibility, productivity, and reading efficiency.
- Collaborated within a **team of four** to implement **OpenAI's API** for real-time summarization and **Amazon Polly** for natural speech synthesis, connected through a **React-based frontend** and a **JavaScript backend**.

Technical Skills

Programming Languages: Java, Python, JavaScript, C/C++, Typescript, SQL, HTML/CSS, LaTeX

Framework Tools: AWS, React, Tailwind CSS, Next.js, Angular, FastAPI, REST API, Vercel, Firebase, Git/Github