

# Elizabeth Ho

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## Education

**University of Virginia Polytechnic Institute**

*Aug 2024 – May 2027*

*BS in Computer Science (3.85/4.0)*

**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