

Education

Johns Hopkins University

Master of Science in Engineering, Computer Science

Baltimore, MD

08/2025 – 12/2026 (expected)

- **Prior Study:** Ph.D. student in Computer Science at **Virginia Tech** (08/2024 - 05/2025) before transferring to JHU.
- **Core Courses:** Randomized and Big Data Algorithms, Advanced HCI: Research Methods, Information Visualization, Social Computing and Computer-Supported Cooperative Work

ShanghaiTech University

Bachelor of Engineering in Computer Science and Technology

Shanghai, China

09/2020 – 07/2024

- **Exchange Study:** **University of Wisconsin-Madison**, Computer Science (01/2023 - 12/2023)
- **Core Courses:** Algorithm Design and Analysis, Deep Learning for Computer Vision, Data Science Programming II, Database Management Systems: Design and Implementation, Computer Graphics

Skills

- **Programming Languages:** C, C++, Python, JavaScript, TypeScript, SQL, HTML, CSS
- **Tools/Frameworks:** React.js, Node.js, D3.js, PostgreSQL, Git, Docker, Linux/Unix, RAG, Model Context Protocol (MCP)

Projects

GenAI Diary Study Chrome Extension

Baltimore, MD

Technologies Used: **TypeScript, JavaScript, Chrome Extension API, Supabase**

Summer 2026

- Built a **Chrome extension** to support longitudinal diary studies, encouraging users to reflect on moments when they desired greater control over GenAI personalization, data use, and privacy during everyday interactions.
- Streamlined participant data collection by integrating one-click screenshot capture, contextual annotation, dynamic day-based tasks, and randomized reflection prompts into a unified workflow.
- Implemented a cloud-backed architecture using **Supabase** Database and Storage for real-time synchronization and persistent management of participant progress, screenshots and timestamped notes across study sessions.

CANARY: An AI-Powered Collaborative Programming IDE

Blacksburg, VA

Technologies Used: **TypeScript, React.js, Node.js, Monaco Editor, GPT-4o**

Fall 2024

- Built an AI-powered collaborative programming IDE using **React** and **Monaco Editor**, featuring a shared code editor, real-time collaboration workspace, and integrated code execution pipeline for team-based programming.
- Implemented real-time collaboration features, including shared code synchronization, function ownership tracking, issue highlighting, contextual commenting, and adaptive assistance for collaborative debugging.
- Engineered a **Node.js** backend service that continuously analyzes code execution results, editor activity, and user progress to identify blocked tasks and trigger **GPT-4o**-powered context-aware assistance in real time.

TSCONNECT: An Interactive System for Mitigating the Curse of Knowledge in Education

Shanghai, China

Technologies Used: **React.js, D3.js, Express.js, SQLite, PaddleOCR, GPT-4**

Spring 2024

- Built a **video-processing pipeline** combining keyframe extraction, **PaddleOCR**, and **GPT-4** concept extraction to auto-generate prerequisite knowledge graphs from lecture videos.
- Built an **Express.js** backend that constructs a knowledge dependency **DAG** for each video and renders it as a hexagonal Voronoi-based network visualization.
- Built a dual-view (student/teacher) dashboard in **React** with three feedback channels, enabling students to identify knowledge gaps and instructors to trace sources of student confusion.

Blizzard World: Overwatch-Themed Amusement Park in 3D Graphics - [code]

Madison, WI

Technologies Used: **JavaScript, Three.js, GLSL Shaders, WebGL**

Spring 2023

- Manually modeled and reconstructed a simplified version of Overwatch's Blizzard World in **Three.js**, recreating the game's layout and landmarks placement from reference screenshots with custom **GLSL** shaders for visual effects.
- Developed real-time scene interaction, including orbit and free-fly camera navigation, object-following/driving controls, and runtime animation playback with adjustable speed.

Selected Publications

Authored [5 papers] in top-tier HCI conferences (CHI, IUI, ASSETS) focused on AI systems and collaborative platforms.

Teaching Experience

Teaching Assistant in Privacy Technology, Design, and Law

Johns Hopkins University, Privacy Technology, Design, and Law (EN.601.794) during Fall 2026

Baltimore, MD

08/2026 – Present

Teaching Assistant in Introduction to Problem Solving in CS

Virginia Tech, Introduction to Problem Solving in Computer Science (CS 2104) during Spring 2024

Blacksburg, VA

08/2024 – 12/2024