Andrew Cascio

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Education	**Duke University**	Aug. 2024 - present
	M.S. Computer Science; 4.00	
	Advisor: Danfeng Zhang	
	Vanderbilt University	Dec. 2023
	B.S. Computer Science, Mathematics; 3.88	
	Cum Laude, Honors in Computer Science	

Research Experience

Duke University

Research Assistant — Spring 2025 - present

- Applying programming language techniques to design a differentially private database query processing system (NSF Award #2317232)

Teaching Experience

Duke University

Teaching Assistant

COMPSCI 587: Language-Based Security	Fall 2025
COMPSCI 230: Discrete Math for Computer Science	Fall 2024

- Held office hours, created and graded problem sets & exams, and taught lecture

Vanderbilt University

Teaching Assistant

CS 3251: Intermediate Software Design	Fall 2022
CS 2201: Program Design and Data Structures	Spring 2022
CS 1100: Applied Programming and Problem Solving with Python	Fall 2021

- Held office hours and graded problem sets & exams

Industry Experience

Amazon

Software Development Engineer Intern (*New York, NY*) — Summer 2024

- Led redesign of AWS EMR Security Configurations by designing new data model, enabling IAM access controls, improving API outputs, and migrating configurations into new storage service to align with evolving architecture
- Reduced number of API calls when listing Security Configurations in AWS Console from $O(n)$ to $O(1)$ in number of configurations
- Successfully deployed a working proof-of-concept to Gamma

Software Development Engineer Intern (*Sunnyvale, CA*) — Summer 2023

- Expedited time to Alexa Voice Service certification and eliminated physical device dependencies for 8+ internal development teams by engineering lab-less self-testing feature in Java
- Found and rectified inconsistencies in code to remove ambiguity and simplify Away Team development experience
- Remodeled AVS developer self-testing portal by adding new test configuration options with React and Redux
- Presented 2 projects leveraging 5+ AWS services to senior management and launched one into production

Ford Motor

Software Engineer Intern (*Dearborn, MI*)   Summer 2022

- Managed team of 6 to develop general-purpose survey tool that cut average creation time from 2 hours to minutes
- Built a RESTful API with Spring supporting all CRUD operations to interface with MongoDB to store surveys
- Configured a CI/CD pipeline with Jenkins to ensure production builds were automatic and stable

Related	Compiler Construction	Language-Based Security	Computer Security
Coursework	Cryptography	Natural Language Processing	Large Language Models