HANNAH NORMAN

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EDUCATION

Stanford University, Stanford, CA

(Expected) June 2025

Master of Science in Computer Science with Visual Computing specialization

• GPA: 4.03/4.00

Georgetown University, Washington, D.C.

May 2023

Bachelor of Science in Computer Science with Mathematics minor

• GPA: 3.99/4.00, Summa Cum Laude

TECHNICAL SKILLS

Programming Languages: (Adv) C/C++, Python, Java | (Inter) JavaScript, Kotlin, SQL, Objective-C | (Beg) HTML, R, Swift, C# **Software and Tools:** Metal, CUDA, AWS Trainium, PyTorch, TensorFlow, OpenGL, VTK, ISPC, scikit-learn, nTop, Blender, Fusion, MATLAB

PROFESSIONAL EXPERIENCE

Software Engineer

Aug 2024 - May 2025

Sileom | Sunnyvale, CA

- · Integrated meshless finite element analysis back end with nTop's CAD front end, enabling real-time and GPU-accelerated simulation
- Developed octree-based tetrahedral meshing and quadrature algorithms for implicit geometry analysis and mapping data for visualization
- Led demo showcasing compute-accelerated simulation and visualization integration on partner platform, extending our collaboration

Course Assistant Sept 2024 - Dec 2024

Stanford University, Department of Computer Science | Stanford, CA

• Introduction to Computer Graphics and Imaging (CS148)

Computer Graphics Engineer Intern

June 2024 - Aug 2024

Sileom | Sunnyvale, CA

- Contributed to early-stage startup developing state-of-the-art meshless finite element analysis simulation techniques
- Implemented algorithms and robust tests for SDF and NURBS surface geometries, octree balancing, and implicit surface integration
- · Validated existing surface modeling algorithms by leveraging knowledge in 3D computer graphics and geometric computing

Teaching Assistant June 2020 - May 2023

Georgetown University, Department of Computer Science | Washington, D.C.

Introduction to Computer Science (COSC010), Discrete Mathematics (COSC030), Computational Structures (COSC125)

Software Engineer Intern

June 2022 - Aug 2022

Target | Minneapolis, MN

- · Built back end of warehouse door assignments management application, enabling end-users to configure sitewide settings in real time
- Designed database structure, built database tables, defined API contracts, implemented each endpoint, and wrote unit tests

Software Developer Intern

June 2021 - Aug 2021

Protolabs | Maple Plain, MN

- · Implemented front- and back-end fixes daily for continual improvement of live, customer-facing e-commerce website
- · Wrote and debugged unit and automated acceptance tests to streamline integration of work items into website code repository

Software Quality Engineer Intern

May 2020 - Aug 2020

Protolabs | Maple Plain, MN

- Developed and maintained test suites to uncover application bugs in the e-commerce platform's automation framework
- Conducted end-to-end, functional, and regression workflow testing to support front- and back-end software relaunch

RESEARCH EXPERIENCE

Brown University, BATS Machine Learning Research Group | Providence, RI

May 2021 - Dec 2022

- · Investigated prompt engineering for zero-shot image classification models augmented with natural language supervision, like CLIP
- Developed benchmarks for selecting auxiliary data using structured knowledge graphs to improve few-shot image classification accuracy
- · Leveraged PyTorch, scikit-learn, and Pandas to train models and evaluate the impact of data selection strategies on performance

exploreCSR Student

Research Assistant

Jan 2021 - May 2021

Brown University, Department of Computer Science | Providence, RI

- Competitively selected for exploreCSR: Socially Responsible AI for Computational Creativity program, sponsored by Google Research
- Implemented few-shot learning model for image classification tasks and presented project at university's research symposium

HONORS AND AWARDS

Clare Boothe Luce Scholar: \$5000 merit-based research grant recognizing high-achieving women in STEM