

HANNAH NORMAN

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EDUCATION

Stanford University, Stanford, CA

June 2025

Master of Science in Computer Science with Visual Computing specialization

- Course Assistant: Introduction to Computer Graphics and Imaging (CS148)
- GPA: 4.03/4.00

Georgetown University, Washington, D.C.

May 2023

Bachelor of Science in Computer Science with Mathematics minor

- Teaching Assistant: Intro to Computer Science (COSC010), Discrete Mathematics (COSC030), Computational Structures (COSC125)
- 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, C#, TypeScript

Frameworks & Tools: nTop, Fusion 360, Rhino, OpenGL, Unity, Blender, Houdini, VTK, CUDA, MATLAB, PyTorch, TensorFlow, Vue

PROFESSIONAL EXPERIENCE

Software Engineer

Aug 2024 - June 2025

Sileom | Sunnyvale, CA

- Integrated GPU-accelerated meshless FE backend with nTop's CAD frontend, enabling real-time analysis of implicit geometries
- Developed octree-based tetrahedral meshing, quadrature, and data mapping routines in C++ for simulation and VTK-based visualization
- Implemented CUDA kernel for sparse matrix-vector products to accelerate conjugate gradient solver and FE integration primitives
- Delivered live demo on partner platform showcasing real-time simulation and field rendering; helped secure continued collaboration
- Worked with compute acceleration, CAD, and partner teams to deliver performant geometry tooling and improve pipeline stability

Computer Graphics Engineer Intern

June 2024 - Aug 2024

Sileom | Sunnyvale, CA

- Built C++ routines for NURBS and SDFs, extending surface integration support and improving geometric robustness across solids
- Implemented 2:1 octree balancing algorithms with neighbor-aware refinement; added robust condition checks and regression tests
- Researched and prototyped surface modeling tools using Rhino scripting and Python to support internal geometry kernel design
- Contributed to early-stage product development at a startup building GPU-accelerated meshless finite element simulation tools

Software Engineer Intern

June 2022 - Aug 2022

Target | Minneapolis, MN

- Built backend for warehouse door assignment tool in Kotlin, enabling real-time configuration of sitewide logistics and scheduling settings
- Designed PostgreSQL schema and wrote Flyway migrations; implemented REST API endpoints and unit tests across service layers
- Collaborated with frontend and DevOps teams to finalize API contracts, align on UI behavior, and ensure smooth production rollout

Software Developer Intern

June 2021 - Aug 2021

Protolabs | Maple Plain, MN

- Contributed daily frontend and backend fixes to a fast-paced e-commerce platform using C#, TypeScript, and the Vue framework
- Investigated, implemented, and tested solutions for bugs and feature requests across staging and production web environments
- Collaborated closely with QA and product teams to identify issues, refine features, and ensure stable CI/CD release workflows

Software Quality Engineer Intern

May 2020 - Aug 2020

Protolabs | Maple Plain, MN

- Wrote, updated, and debugged Python automation tests for manufacturing and order-processing systems used in production workflows
- Designed and parameterized a new design-flow validation test suite for verifying kanban activity logic across part configurations
- Conducted regression testing and triaged bugs in preparation for the company's first major front- and back-end software relaunch

RESEARCH EXPERIENCE

Research Assistant

May 2021 - Dec 2022

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

- Investigated prompt engineering for zero-shot image classification models augmented with natural language supervision, including 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

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

May 2021 - May 2022