

STEPHEN GAVIN SEARS

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Profile:

Graduate student in Computer Graphics and game technology at University of Pennsylvania. Dual-enrolled as a Computer Science Major and Visual Studies Minor at Haverford College. Experienced with coding and software design in C++, Swift, C#, Python, Java, JavaScript, and HTML/CSS. Strong writer and communicator with academic experience in computer graphics, machine learning, data science, data structures and algorithms. Work experience in web app development, JavaScript, HTML/CSS, C#, Unity, Blender, Microsoft Office, Microsoft SQL. Strong IT services skills.

Education:

MSE Computer Graphics and Game Technology – University of Pennsylvania, Philadelphia, PA Aug. 2024-Present

Expected Graduation Date: May 2026

Relevant Coursework: User Interface (UI) and User experience (UX) Design, Interactive Graphics

Computer Science Major & Visual Studies Minor - Haverford College, Haverford, PA Aug. 2021-Present

Expected Graduation Date: May 2025

Relevant Coursework: Machine Learning, Computer Graphics, Game Design, Game Programming, Analysis of Algorithms, Data Science, Data Structures, Discrete Mathematics, Computer Organization, Encoding Music, Multivariable Calculus, Financial Accounting

Work Experience:

Teaching Assistant: Machine Learning – Haverford College, Haverford, PA Jan. 2025-Present

- Held office hours every week to assist machine learning students
- Used knowledge of Python, TensorFlow, and scikit-learn in grading lab assignments

The HyperReal Theater - Bryn Mawr College, Bryn Mawr, PA Aug. 2024-Dec.2025

- Met once a week to create VR and motion capture experiences in Prof. Aline Normoyle's lab
- Calibrated and prepared motion capture equipment for use in professional demos
- Tested and built game demos for the Oculus Quest
- Developed IK solvers in Unity C#, and rigged and textured 3D models for use with motion capture

Digital Scholarship Project Assistant - Bryn Mawr College, Ardmore, PA **(10-14 hrs/week)** Sep. 2023-Dec. 2023

- Tested a project on the Oculus Quest used in a Bryn Mawr College student's thesis.
- Optimized 3D models in Blender by editing shaders, baking textures, and decimating objects.

Incubator Fellow - Haverford College, Haverford, PA **(35 hrs/week)** Jun. 2023-Jul. 2023

- Co-founded a game studio, Lemon Dragon, to produce Word Wizard, an English language learning video game, with a team of developers.
- Scripted and designed dynamic UI systems for reading comprehension games using C# in Unity.
- Managed and troubleshooted file repositories hosted by GitHub using command line and GitHub desktop.
- Utilized 3D modeling, texturing, and shading to create ready-to-use game assets
- AGILE scrum

Software Engineer & Systems/Hardware IT Specialist - Sears Mfg. Co., Davenport, IA **(40 hrs/week)** Jun. 2022-Aug. 2022

- Worked on MVC format web-based applications by utilizing Microsoft SQL, HTML, CSS, JavaScript, C#, PHP, and Azure DevOps
- Troubleshooted project issues by correcting payroll information in test software, which reportedly was accurate to the cent when referenced.
- Stood in for IT and Hardware specialists

Systems/Hardware IT Specialist - Sears Mfg. Co., Davenport, IA **(40 hrs/week)** Aug. 2020-Aug. 2021

- Reimaged and replaced memory in 150 PCs company wide
- Worked extensively with Windows 7 and Windows 10 Systems
- Managed factory production flow via Manage 2000 MRP Personal Workstation

Professional Development:

Languages: Intermediate French Language Skills, Elementary proficiency Indonesian

Programming Languages: C++, GLSL, Python, Java, JavaScript, C#, swift, MS SQL

Libraries and APIs: OpenGL, Three.js, Scene Kit, Unity C#, Pygame, Networkx, Pandas, Matplotlib, jQuery, TensorFlow, pytorch

Software: Qt, Unity, Xcode, Blender, Maya, Microsoft Office, Excel, SQL Server Management Studio (SSMS), Latex, Markdown