STEPHEN GAVIN SEARS

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Profile:

Master's student in Computer Graphics and Game Technology at University of Pennsylvania. Graduated as a Computer Science Major and Visual Studies Minor at Haverford College. Experienced in theoretical machine learning concepts and building custom ML pipelines from research papers. Tested coding and software design skills in C++, Python, SQL, C#, Swift, Java, JavaScript, and HTML/CSS. Strong communicator with academic experience in computer graphics, machine learning, data science, data structures and algorithms. Work experience in web app development, machine learning, data analysis, and IT. Avid enthusiast of Git and GitHub.

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, Procedural Computer Graphics, Computer Animation, 3D Modeling

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:

Data Analyst and Power BI Specialist - Sears Mfg. Co., Davenport, IA **(40 hrs/week)**   May. 2025-Aug. 2025
- Created fully automated financial and manufacturing Power BI reports meant to make data visible for managing supply chain and cost engineering
- Configured Data Lake views using Transact-SQL
- Generated Data Warehouse delta tables using scheduled pyspark notebooks and Fabric data pipelines
- Cleaned forecast data on request using python polars
- Transformed data for reports using Power Query, DAX

Teaching Assistant: Machine Learning – Haverford College, Haverford, PA   Jan. 2025-May 2025
- Held TA hours every week to assist machine learning students
- Graded student assignments on theoretical AI/ML concepts, Python, TensorFlow, and scikit-learn
- Assisted in testing and writing code for 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

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 troubleshot 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
- Identified discrepancies in payroll calculations in test software
- Stood in for IT and Hardware specialists when needed

Professional Development:

Languages: Intermediate French Language Skills, Elementary proficiency Indonesian
Programming Languages: C++, GLSL, Python, Java, JavaScript, C#, swift, Transact-SQL
Libraries and APIs: TensorFlow, pytorch, Polars, OpenGL, WebGL, Scene Kit, Unity C#, Pygame, Networkx, Pandas, Matplotlib, jQuery
Software: Qt, Unity, Xcode, Blender, Maya, Microsoft Office, Excel, SQL Server Management Studio (SSMS), Latex, Markdown