Shalma Wegsman

Email: shalma.wegsman@gmail.com
Phone: 347-484-8792
LinkedIn: www.linkedin.com/in/shalma-wegsman-a9955320a
Website: https://www.shalmawegsman.com/

EDUCATION

M.Sc. IN PHYSICS
New York University
New York, NY
2020-2022

B.A. IN PHYSICS
The University of Chicago
Chicago, IL
Minor in Mathematics
Recognized with Honors
2016-2020

SKILLS

Strong
Unity Game Engine
Three years professional experience

PYTHON
Six years experience for academic physics research

GITHUB
Four years experience for collaborative Unity projects and research

Additional
C#, C/C++, Unreal Engine, VR/AR, Computer Graphics, Blender, Vulkan, OpenGL, WebGL,
3D Math, Calculus, Machine Learning, PyTorch, TensorFlow, Superluminal, Rider, Perforce, Visual Studio, Arduino, Ubuntu, Linux, LaTeX, Outlook, Reaper, Audio Production

Languages
ENGLISH - Native
SPANISH - Advanced

WORK EXPERIENCE

October 2022 - June 2024

SOFTWARE ENGINEER III - PHYSICS
Intercept Games, Seattle, WA (remote)

- Worked as a Unity/C# developer on the game Kerbal Space Program 2, with a focus on real-time physics simulations
- Improved physics simulation performance by over 30% through the implementation of multiple threaded jobs
- Debugged over 30 high-impact player facing issues
- Shipped features including buoyancy, thermal occlusion, and orbital mechanics simulations
- Communicated technical needs and limitations to designers and artists

January - August 2022

SOFTWARE DEVELOPER INTERN
Parallux, New York, NY

- Developed a multiplayer interactive chess game in Unity and C# for Lux, a 3D metaverse
- Used networking and RPC functions to sync the game experience for multiple players
- Collaborated with developers, engineers, and technical artists
- Used C# to script a chess game with rule-enforced game mechanics

June - July 2024

QUANTUM MECHANICS LECTURER
Columbia University, New York, NY

- Developed and taught a course on quantum mechanics for the Columbia University Pre-College Program
- Covered topics from calculus, solving differential equations, quantum computing, and more

January - August 2022

COLLEGE PHYSICS INSTRUCTOR
The Pratt Institute, New York, NY

- Taught two sections of the undergraduate course *Introduction to Physics & Chemistry* to architecture majors

September 2020 - June 2022

PHYSICS GRADUATE RESEARCHER
New York University, New York, NY

- Performed data analysis in Python to search for new theoretical particles, resulting in a peer reviewed publication
- Helped implement a novel statistical method by writing code to analyze 4D parameter spaces
- Utilized cloud computing through NYU's High Performance Computing center