# Shaurya Sarma

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#### EDUCATION

## University of Pennsylvania

Philadelphia, PA

Candidate for Bachelor of Science in Digital Media Design (Computer Science, Computer Graphics)

May 2028

#### Monroe Township High School

Monroe Township, NJ

104.125 Weighted Cumulative | 13 AP Courses

June 2024

# TECHNICAL SKILLS

Languages: Typescript, C#, Java, C++, Python, Dart, HTML/CSS

Frameworks: React, Angular, Flutter, Flask

Other: Three.js, Blender, Unity, Unreal Engine, Figma, Photoshop, Premiere Pro, Maya, WebGL

#### Experience

# Research Intern - RWTH Aachen University, DAP Laboratory

May 2025 - July 2025

Unity, Virtual Reality (VR), C#, Python, Blender

- Developed XR Lattice Configurator in Unity for compressible lattice structures with real-time haptic feedback
- Collaborated with international researchers to explore XR applications in Additive Manufacturing workflows
- Presented findings at a symposium with 50+ attendees; contributed to a 22-page research report and poster
- Completed A1 German course during 10-week internship to enhance communication in a professional, global setting

## 3D Modeler/Programmer Intern - Artie World

Jan 2021 - Nov 2023

Unity, Maya, Blender, Substance Painter, Photoshop, Aesprite

- Designed 150+ 3D assets for AR mobile app w/ Unity Game Engine, focusing on low polygon counts for efficiency
- Contributed 300+ commits to AR engine codebase for interacting w/ 3D models via mobile app
- Startup developing immersive AR experiences that enable businesses to advertise to consumers interactively

# Projects

Penn Place | React, Three.js, Typescript, Python, MongoDB | Link here

- Spearheaded a collaborative digital 3D art experiment with 370+ users and real-time updates on a voxel canvas
- Originated project vision, inspired by Reddit's r/place, and led team of three designers and four developers
- Achieved key project milestones within a 8-week timeline through delegating developmental tasks

Echo | Next.js, React, Typescript, Python, Flask, PyTorch, MediaPipe, MongoDB | Link here

- Developed an AI-powered speech restoration tool using Visual Speech Recognition (VSR) and generative voice AI to convert mouth movements into spoken words, enabling real-time communication for speech-impaired individuals
- Collaborated with a team of four at HackRU to build the project, winning the Best UI/UX track out of 120 other projects for its intuitive design and seamless user experience
- Redesigned and optimized machine learning model for near real-time inference

**Storify** | React, Typescript, Python | <u>Link here</u>

- Storybook generator powered with Gemini and Stable Diffusion APIs
- Utilized generative art and large language model to dynamically create a story based on user prompt with comprehension questions and illustrations

#### StudyHungry | React Native, Typescript | Link here

- Productivity app released on the Apple Store
- Consulted students to determine which features most effectively addressed procrastination
- Implemented pomodoro clock with focus modes, daily planner, educational video feed, and routine-creation system

## Traveling Salesperson Problem Visualization | Javascript | Link here

- An interactive real-time visualization of TSP Problem with customizable parameters
- Programmed algorithm to find most optimized path using a genetic algorithm called NEAT
- Created artificial neural networks that evolve into more complex networks in generation-based learning