

Swan Carpenter

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thingsbyspoon.cc
github.com/pitworker

Swan is a software engineer creating highly interactive tactile and web-based experiences.

Education

Carnegie Mellon University
Class of 2021
Bachelor of Computer Science and Arts
Focus in Environments Design
QPA 3.61, College Honors

Relevant Coursework

Computer Science
Computer Systems
Parallel & Sequential Algorithms
Theoretical Ideas in Computer Science
Principles of Imperative Computation
Applied Machine Learning
Robotics for Creative Practice
Matrices and Linear Transformations
Calculus in Three Dimensions
Conlanging with Language Technologies

Design

Environments Design Studios I, II, III
Algorithmic Textile Design
Experimental Capture
Futures
Systems
How People Work

Skillset

Systems, Embedded	Web
C/C++	WebAssembly
Rust	JavaScript/NodeJS
Arduino	TypeScript/React
	Google Cloud
Mobile	Electron
Java/Android Studio	
Dart/Flutter	Management
Swift/XCode	Git
	Batch/Shell
Multimedia	
TouchDesigner	Misc.
FFMPEG	SML
C#/Unity	Python

Honors and Awards

Armero Award for Inclusive Creativity
2021
Sole Project Recipient for *Zobits*

National American Advertising Award
2023
Gold for *Doodles Genesis Factory*

Work Experience

Fullstack Developer | Freelance
October 2023 - Present
Building key backend and frontend features for consumer-facing web applications and platforms. Clients include Deeplocal and Magic Circle Game Studio.

Software Developer / Creative Technologist | Deeplocal
June 2021 - May 2022 (lvl. 1), May 2022 - October 2023 (lvl. 2)
Leading software development, designing system architecture, and writing code for interactive machines and web experiences. Clients include Google, Meta, Netflix, Mars, TikTok, Museum of the Future, and Virgin.

UX Prototyping Intern | Motional (Aptiv-Hyundai JV)
June - August 2020
Prototyping and developing functional demo of a 3D map view within the management software for a large fleet of autonomous vehicles. Designs have since been implemented into the production software.

UX Prototyping Intern | Aptiv
July - August 2019
Designing and implementing interactive, location-based, contextual UI elements for in-car passenger displays for autonomous vehicles.

Notable Work

Virgin Voyages Jen AI | Professional
Launched June 2023
Collaborated on development of middleware REST API interfacing between frontend and AI server to generate, stitch, and stream custom (consensual) deepfaked invitation videos featuring JLo inviting the user on a personalized Virgin cruise experience.

Highmark "How's It Going?" | Professional
Completed for event in May 2023
Built out a server using Rust and Tokio to support multiple clients asynchronously adding and removing items from a shared queue of visitor-generated survey data.

Google Marketing Live Pinball | Professional
Completed for event in May 2023, later permanently installed in Google offices
Built prototypes and contributed to creative concepts, and later led development of software, in Unity, for a set of three custom pinball machines for Google's Marketing Live event. Software scope encompassed sensing from, and triggers to, in-game hardware features, scoring, game mechanics, and in-game cutscenes.

TikTok TAC Moderation Workstation | Professional
Launched in LA February 2023, also launching in Dublin, Singapore, and DC
Sole software developer for kiosk demonstrating TikTok's moderation process. Built in Electron, and enabling client content management via custom Strapi CMS, including full support for dozens of languages.

Zobits | Personal
Completed May 2021
Developed electronics and collaborated on code and designs for creative toy with which users populate a physical landscape with magnetic organism figures to define an animated, digital biome that evolves over the course of a week.