

Swan Carpenter

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thingsbyspoon.cc
github.com/pitworker

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

Education

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

Relevant Coursework

Computer Science
Computer Systems
Parallel & Sequential Algorithms
Theoretical Computer Science
Principles of Imperative Computation
Functional Programming
Applied Machine Learning
Robotics for Creative Practice
Conlanging with Language Technologies

Math
Mathematical Concepts and Proofs
Matrices and Linear Transformations
Calculus in Three Dimensions
Probability

Design
Environments Design I, II, III
Futures
Systems
How People Work

Skillset

Web	Native
JavaScript	C/C++
TypeScript	Rust
React	Python
NextJS	Java
Tailwind CSS	C#
Sass	Arduino
NodeJS	
Electron	Multimedia, AI
WebAssembly	TouchDesigner
Google Cloud (GCP)	FFMPEG
Cloudflare	Unity
	ChatGPT/Gemini
Mobile	Management
Android Studio	Git
Dart/Flutter	Bash/Shell
Swift/XCode	

Honors and Awards

Armero Award for Inclusive Creativity
2021
Capstone Project Award for *Zobits*

Pittsburgh AAF Award
2023
Gold for *Netflix Stranger Things Clock*

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

Work Experience

Fullstack Developer | studiosC
October 2023 - Present
- Managing sole-proprietorship webdev studio
- Owning end-to-end **frontend** and **backend** dev for consumer-facing webapps/platforms
- Using **TypeScript, React, HTML, CSS, NextJS, NodeJS, Python, and Cloudflare**
- Clients include Deeplocal, Nik Bentel Studio, Artey.ai, Magic Circle, LinkedIn, and Mars

Software Engineer | Deeplocal
June 2021 - May 2022 (lvl. 1), May 2022 - October 2023 (lvl. 2)
- Leading software teams for multiple simultaneous projects
- Designing **system architectures**, and writing **frontend** and **backend** code
- Building award-winning interactive web experiences
- Using **JavaScript, TypeScript, React, NextJS, HTML, CSS, NodeJS, Electron, and GCP**
- Clients include Google, Meta, Netflix, TikTok, Museum of the Future, and Virgin

UX Prototyping Intern | Motional (Aptiv-Hyundai JV)
June 2020 - August 2020
- Owning design and prototype development for functional demo of a 3D map view
- Integrating live data from management software for a large fleet of autonomous vehicles
- Using **JavaScript, MapBox, HTML, and CSS**
- Designs have since been implemented into the production software.

UX Prototyping Intern | Aptiv
July 2019 - August 2019
- Owning design and prototype development for infotainment layer on AV in-car map view
- Integrating live interactive location-based content into in-car passenger display
- Using **Java** and **Android Studio**.

Notable Projects

Artey.ai Frontend
Ongoing since October 2024
Owning development and UX design of **TypeScript, NextJS, React**, and **Tailwind**-based frontend for generative-AI integrated poster design application.

Magic Circle Platform-Wide Tutorials
Feature launched February 2024
Owned implementation of a platform-wide tutorials feature for an online social gaming platform. Feature is customizable per-game, and built on a stack of **TypeScript** and **React** on a serverless **Cloudflare** infrastructure.

Virgin Voyages Jen AI
Launched June 2023
Collaborated on development of a **Google Cloud Platform** hosted **TypeScript** middleware **REST API** interfacing between frontend and AI server to generate, stitch, and stream custom (consensual) deepfaked invitation videos featuring Jennifer Lopez inviting the recipient on a personalized Virgin cruise experience.

Highmark "How's It Going?"
Launched May 2023
Built out a server using **Rust** and **Tokio** and a series of **JavaScript/React** frontends to maintain a queue of user-generated survey data being simultaneously created, edited, and removed by multiple visitor- and staff-facing clients. Presented as part of the launch event for Highmark's "How's It Going?" campaign.

TikTok TAC Moderation Workstation
First site launched February 2023, subsequent sites launched later
Led software development and served as primary contributor for a set of kiosks demonstrating TikTok's moderation process. Kiosk application built in **JavaScript** and **Electron** with full multilingual support and **Strapi**-based, client-facing content management system.

Tartan Generator | Personal
Completed August 2022
Conceived, designed, and developed a **JavaScript** web app that allows users to upload images to generate tartan plaids based on color palettes extracted from the images using a K-Means algorithm written in **Rust/WebAssembly**. Plaids are drawn using the **HTML Canvas** and direct **DOM manipulation**.