

SCOTT CAZAN

ART + ENGINEERING

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Summary

I am highly experienced in creating interactive experiences on the web as well as for on-site installations and production-ready commercial systems. My career has allowed me to work in both experimental contexts as well as being in the position to ship high-availability, production-ready code for web applications and e-commerce infrastructure. I have been privileged to have ambiguity and the exploring of new territory as a large part of my professional experience.

While being particularly skilled in full-stack JavaScript/TypeScript applications, the nature of my work has allowed me to work in a variety of different languages and ecosystems for creating impactful interactive experiences. My own research interests have leaned heavily to include sound, art, design, technology, and critical theory.

Working Experience

6/2023-Present **Contract Lead Creative Technologist**

Beautiful Machine

I am the lead developer on two large projects involving large language and diffusion models where I work on building the server and API architecture as well as designing prompts, fine-tuning models, and coming up with effective strategies for producing a series of automated creative outputs from OpenAI, MidJourney, and Stable Diffusion. In addition, I am collaborating on integrating with hardware vendors for an in-person event and advising two small teams of developers in charge of building the front-ends in their framework of choice.

We have worked with Typescript, Node.js, Python, Vue.js/Nuxt, React/Next, Nest.js, Azure, and Vercel (for shipping my own prototypes to the client), Stable Diffusion, MidJourney, and OpenAI.

8/2022-7/2023 **Lead Developer**

Plan8 Music

I was the lead developer on a team at Plan8 where we designed interactive music systems for a variety of different mediums (although sharply focused on web technologies). I lead the development on all interactive projects for clients such as Spotify, Google, Meta (Facebook), Intel, YouTube, Volvo and many more. I designed and collaboratively implemented a custom audio and music engine in use for all web projects including an accompanying suite of tools for in-house composers allowing them to generate assets and interactions using our engine. I was also in charge of all backend infrastructure along with taking lead on architecture of the front end and all devops related to campaigns and internal systems.

While at Plan8 I worked with Typescript, C, Rust, embedded hardware, OpenFrameworks, WASM (via Rust and Faust), Vanilla JS, Vue.js, Nuxt, Lit, Next, React, Webpack, Vite, Express, AWS,Netlify, and many others due to the nature of the campaign work.

8/2019-8/2022 **Senior Web Developer / Head of eCommerce**

Teenage Engineering

I was the lead web developer at teenage engineering where I worked across the full-stack, managing multiple code-bases, and working on apps (web and mobile) that pair with the hardware products (utilizing WebAssembly, WebMIDI, WebBluetooth, and a variety of other lower level technologies). Beyond day to day eCommerce responsibilities, we also developed interactive experiences for campaigns, education, and internal design needs. In addition I've developed a number of in-house tools that have a tight integration with the devices to allow designers to reduce the friction of working with embedded hardware creatively.

During this time I worked heavily with React, TypeScript, WebAssembly, Node.js, Rust, Python, Next.js, GraphQL, Webpack, Cordova, AWS, Heroku, Gitlab and was in charge of designing CI/CD pipelines for our ecommerce applications on both the front and backends. In addition I have been leading multiple projects to improve aging codebases for increased flexibility and stability.

- 8/2007-8/2019 **Polyglot Programmer/Designer**
Contract Creative Coder
 Clients have included Google, BMW, Pricewaterhouse Coopers, Art Center College of Design, Cargo Collective, John Deere, Jet Propulsion Laboratories, Intel, and many others.
 Hired and commissioned for jobs in the media arts field producing the technical/engineering side of media and art-related projects using cutting-edge JavaScript, React, Redux, GraphQL, Node.js, Webpack, Yarn, Backbone, React-Native, Electron, C/C++, audio DSP, embedded Linux (Raspberry Pi, BeagleBone Black, Beagleboard XM, Intel Galileo), Teensy boards for signal processing, custom electronics, Python, 3D graphics programming, and computer vision with OpenCV among others. I also worked on the sound design and mixing for a number of VR audio projects and interactive museum installations.
- 7/2018-11/2018 **Guest Faculty in Sound Studies**
Universität der Künste Berlin
 Taught a course titled "Algorithmic Thinking" teaching skills in programming (using SuperCollider), conceptual art, theory, and custom instruments to grad students with a wide variety of skill levels.
- 4/2018-8/2019 **JavaScript Engineer**
Meta Solutions, AB
 Working in the field of Open Data, developing complex and bullet-proof JavaScript applications that power the Swedish Open Data Portal as well as many government Open Data systems. Working with advance JavaScript, Mithril, React, Linked Data, graph databases, and data visualization.
- 12/2017-4/2018 **JavaScript Engineer**
Media Peers, Deluxe Entertainment
 Developing and helping to architect a large single page application serving media content to clients utilizing React, Redux, Node.js, Typescript, Webpack, GraphQL, backend microservices, and functional programming.
- 7/2013-5/2017
 1/2011-7/2011 **Special Faculty in Experimental Sound Practices and Composition**
Interim Technical Director, Experimental Media Studios
California Institute of the Arts
 Subjects taught: Sound programming (in SuperCollider, C, and JavaScript), algorithmic/interactive composition, Max/MSP /Jitter, Processing, embedded systems programming, hardware sensors, sound synthesis, audio production, basic electronics, history of electronic music.
- 1/2015-2/2017 **Faculty in Creative Technology**
Art Center College of Design
 Subjects taught: Advanced JavaScript, Python, and web technologies in a course titled 'Creative Technology'.
- 4/2014-10/2017 **Architect and Lead Programmer**
Netlab Toolkit (NTK) - Art Center College of Design
 Research and development of patching software for network connected embedded devices specifically targeted towards designers and artists in collaboration with Art Center and Intel. Written utilizing advanced JavaScript, Node.js, Backbone, Johnny-Five, Arduino (and a number of other embedded devices), and Electron.
- 7/2013-9/2015 **Javascript Engineer**
Cargo Collective
 Programming and designing a 3D graphics web application for artists with a focus on performance tuning utilizing THREE.js, Backbone, CSS3D, and Bash. I was tasked with architecting an MVC system from scratch and coming up with solutions to many unsolved problems. Due for launch in the next few months. I am still under an NDA but have been authorized to provide screenshots and to speak about the project on request.
- 9/2012-9/2014 **Arduino Instructor**
Machine Project
 Subjects taught: Intro to Arduino - an intensive workshop on coding for the Arduino and building custom electronics for artists and engineers.
- 4/2012-5/2013 **Faculty in Web Design and Interactive Media**
Art Institute of California
 Subjects taught: Object-Oriented Programming in JavaScript and Python, Interactive Media (using SuperCollider, Max/MSP, OpenFrameworks, and Processing), New Media, Processing, Advanced Javascript, New Media Aesthetics, SuperCollider.

- 1/2010-6/2012 **Lecturer**
University of California, Santa Barbara
Subjects taught: Sound design, Max/MSP/Jitter, video projection mapping, multimedia for theater, and practical technical theatre
- 8/2009-5/2011 **Computer Programmer / Faculty**
The Buckley School
Programmed automated systems used throughout the school for attendance tracking, reporting, and teacher-parent communication.
Subjects taught: Intro to Computer Programming (Java) for grades 8 through 10.

Relevant Activities

Active artist

I am an active artist in the field of sound art and interactive media where I perform frequently using code, custom hardware, and text scores.

Höjden Board Member

I currently sit on the board of this unique artist-run space that houses around 80 artists and 5 artist ateliers. As my co-board member says it, Höjden strives to "apply theory in practice" where we work to both maintain the ethics of an anti-capitalist organization and survive in an increasingly profit-oriented artist landscape. Höjden is organized with an intersectional and norm-critical approach to a working space and venue for the arts.

Chair of the Fylkingen Production Group

I am currently the chair of the Fylkingen Production Group which is the curatorial board for this 90-year old artist-run co-op and venue. Here we are in charge of producing and curating concerts with a focus on diverse perspectives, an international presence, and a highly engaging program. The organization runs in an anarchist fashion with a strong emphasis on community input, transparency, and conflict management.

Co-founder and Editor of The Experimental Music Yearbook

From 2009 to 2020 I, along with John Hastings and Casey Anderson, were the chief editors on this yearly journal of writings, scores, and recordings around the topic of experimental sound.

the wulf. Advisory Board

Along with being a frequent participant in the events at this non-profit dedicated to providing space for experimental arts by removing money from the process, I also sat on the Advisory Board where we took the majority of the day to day decisions about how the wulf. operated and was financed.

Ordinal Garden

I currently run a small social network on the Fediverse for artists, technologists, and anyone who might find themselves in such circles. Additionally, this acts as a space to experiment with ideas around federation as a more equitable social architecture.

Articles

I have authored a small number of published articles around topics of experimental music and sound. These can be provided by request.

Education

- 5/2009 **M.F.A. in Experimental Sound Practices**
California Institute of the Arts
Emphasis in Interactive Audio/Music Programming
- 6/2005 **B.A. in Music Composition**
University of California, Santa Barbara, College of Creative Studies
Magna Cum-Laude