Zachary R. Davis

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Experience

PlusMinus, LA

Lead Frontend Engineer (May 2020 – present)
Frontend Engineer (Jan 2017 – Sept 2018)

- Built the frontend of a spreadsheet SAAS product designed for fluid data entry, millions of records per table, and hundreds of options for linking, filtering, and visualizing data.
- Developed and maintained a large TypeScript / Next.js codebase and a Storybook library of 200+ React components. Assembled all frontend tooling, including Chromatic CI/CD, Jest testing, Storybook library, Slack integrations, and asset-intake scripts.
- Collaborated with designers to prototype UI elements, weigh technical trade-offs, and distill Figma sketches into specifications and assignable tasks
- Interviewed and mentored a junior developer without React experience to responsibility for roughly 20% of the component library.

FuiszVideo, NYC / LA

Frontend Engineer (Aug 2016 – Dec 2016, company closure)
Junior Frontend Engineer (Feb 2015 – Aug 2016)

- Built a React / Express application for creating interactive video ads with clickable objects tagged for position tracking via computer vision.
- Built interactive ads and templates that utilized our object-tracking data, with robust performance across ad-placement networks and devices.
- Automated publication of ads to the MoPub platform, replacing a 15-minute manual process and enabling automated end-to-end testing.
- Ported a Linux / Docker computer vision pipeline to MacOS, increasing the number of developers equipped to work on the product's core CV technology from 2 to 8.

Access Intelligence, NYC

Frontend Developer (Apr 2014 – Feb 2015)

- Developed a custom WordPress theme for scroll-triggered animations using jQuery and GreenSock.
- Designed and developed an Angular application for browsing the winners of a magazine-industry awards program with 47 distinct categories.
- Wrote an internal-use PHP application for sharing documentation and routing requests to the web-development department.

Projects

museumofus.org, for the Museum of Us, San Diego

Mar 2022 – Sept 2022

- Rebuilt the museum's website with a Sanity CMS backend and a statically-generated Next.js frontend, which reduced hosting costs by a factor of 5.
- Improved Lighthouse-assessed scores for accessibility (+9%), best practices (+17%), SEO (+8%), and performance (+45%) as compared with the former website.
- Collaborated with museum staff and designers to establish and meet content requirements, including 9 unique page templates and 12 different content-blocks.

Robot Actor for the New York City Players, NYC

July 2017 – Feb 2018

- Designed, fabricated and programmed a robot actor with movement and vocal cues triggered by a WiFi connected web interface, a gimbal-mounted camera that tracked actors using infra-red, and an onboard TensorFlow network for generating prose.
- Added functionality in parallel with the client's writing and rehearsal of the play, which required rapid and creative execution of new features.
- Established a maintenance and spare-parts routine that carried the robot through 32 performances in the US and Europe.

Education

The Recurse Center, Participant, NYC / remote

Jan 2023 – Mar 2023

- Created a demonstration Entity-Component-System architecture in TypeScript, suitable for small games or simulations, and delivered a presentation on the structure and uses of the ECS pattern.
- Trained ProGAN and CGAN deep-learning models on transparent PNG images and MNIST handwriting data using Python, PyTorch, PaperSpace and a local GPU.
- Wrote use-onnx-web, a React hook abstracting over ONNX.js, to bring client-side inference into a React app in 5 lines of code.

University of Washington, MFA, Photomedia, Seattle, WA

Wesleyan University, BA, English / Art Studio, Middletown, CT