

Front-end developer and creative technologist working at the intersection of art and science. I love making engaging, interesting, and inclusive interactive systems that spark joy and curiosity in people.

## **Skills**

### **Web**

- HTML
- CSS
  - Preprocessors (PostCSS, others)
  - Frameworks (Bootstrap, Bulma, more)
  - Patterns (ITCSS, SMACSS, BEM, more)
- JavaScript
  - Vanilla ES5 / ES6+
  - ThreeJS and WebGL
  - React (Next.js, vanilla)
- Motion
  - Framer Motion
  - GSAP
- Accessibility
- Serverless
  - Vercel, Netlify
  - AWS (Amplify, Lambda, DynamoDB)
- Browser APIs (Canvas, WebMIDI, Websockets, others)
- CMSs (Sanity, Contentful, Airtable, Wordpress)
- PHP
- MySQL

### **Creative coding**

- Processing
- p5.js
- openFrameworks
- WebAR (8th Wall)
- Shaders (GLSL)

### **Hardware**

- Arduino
- Raspberry Pi
- Circuit board (PCB) ...
  - Design (Eagle)
  - Fabrication
  - Assembly (incl. SMD)

### **Fabrication**

- Woodworking
- Welding (MIG)
- CNC routing and milling
- 3D printing (FDM and resin)
- Laser cutting

## **Education**

### **Master of Science in Education (M.S. Ed.) in Instructional Technology**

University of Nebraska at Kearney — August 2011 to May 2014

- Pursued self-directed, project-based courses and research focused on the integration of advanced and emerging technologies into studio art curriculum in close collaboration with arts faculty.
- Collaborated with Arts faculty to expand their existing undergraduate curriculum with hands-on, project-based exercises centered on STEAM concepts and emerging technologies like Arduino, 3D printing and projection mapping.

### **Bachelor of Science (B.Sc.) in Computer Science**

University of Nebraska at Kearney — August 2005 to May 2011

- Designed and taught a full semester-long course to a group of fellow undergraduates entitled “Interactive and Generative Art”, culminating in a public exhibition.
- Helped win a \$20,000 grant with the Computer Science and Art & Art History departments.

## **Experience**

### **Senior Developer at Bluecadet**

Remote — September 2021 to April 2023 (1.5 years)

- Prototyped and built websites, AR experiences, and interactive touchscreen apps in close collaboration with designers, art directors, and others.
- Owned the development side of multiple projects for clients including The Met, LACMA, and Gore.
- Served as internal SME for digital accessibility.
- Mentored junior developers on front-end coding fundamentals, with an emphasis on accessibility.

## **Developer Advocate at Accessible360**

Minneapolis, MN — July 2019 to September 2021 (2 years)

- Provided personalized technical and strategic accessibility consultation for clients with complex products.
- Redesigned customer-facing Knowledge Base with a focus on readability.
- Contributed over 40 high-quality articles and hundreds of code samples internally and externally.
- Provided individualized support and guidance to auditors.
- Identified internal process gaps affecting client satisfaction and facilitated solutions.
- Attended and gave talks at meetup groups and conferences.

## **UI Developer (consultant) at Concord**

Minneapolis, MN — July 2017 to July 2019 (2 years)

- Provided client coaching and support on modern CSS architecture and technologies, software design patterns, source control workflows and more.
- Worked closely with client designers to evaluate designs and advise on feasibility based on tooling, timelines, usability, and more.
- Performed deep-dive analysis of legacy CSS, JavaScript, and markup currently in use to help leadership make key strategic decisions.
- As a UI dev team lead, I helped a client transition to a more cross-functional Agile workflow using the SAFe 4.0 framework.
- Architected, built, and delivered a custom Bootstrap-based design framework in close collaboration with designers.

## **Web Designer/Developer at Securities America, Inc.**

Omaha, NE — October 2015 to July 2016 (9 months)

- Designed, wireframed, and prototyped web applications in collaboration with Axure, Photoshop, HTML, CSS, and JavaScript.
- Worked closely with .NET developers to build web applications using .NET MVC 5, Bootstrap 3, KendoUI, and more.

## Adjunct Professor at Metropolitan Community College

Omaha, NE — August 2015 to November 2015 (3 months)

- Designed and taught an 11-week, project-based course titled “How to Build Almost Anything”. Topics included 3D printing, laser cutting, CNC, and more.
- Collaborated with instructional designers to create course materials for students.

## Talks

- “Digital morphogenesis - exploring the creative power of nature through code and simulation” at [Art and Math Seminar](#) hosted by KSU’s Math department (March 2023).
- “What We Learned From Trying to Build an Accessible Carousel” at [Open Source North](#) (May 2021), with co-presenter Aaron Page.
- “Accessibility in Action - a live coding adventure!” at [Mpls Jr Devs](#) (September 2020).
- “Making the Web Work for Everyone” at [JavaScriptMN](#) (October 2019).

## Writing

- [Modeling organic branching structures with the space colonization algorithm and JavaScript](#) on Medium
- [Simulating 2D diffusion-limited aggregation \(DLA\) with JavaScript](#) on Medium
- [Exploring 2D differential growth with JavaScript](#) on Medium
- [How to build a more accessible carousel or slider](#) on DEV
- [How I built an accessible IoT dashboard](#) on Medium

## **Exhibitions**

- “Strange Growths”, ESC, REM5 VR, Minneapolis, MN (group exhibition, 2019).
- “Voronoi experiments”, Art+Tech Experience, Minneapolis Telecommunications Network (MTN), Minneapolis, MN (group exhibition, 2019).
- “Obscuron”, light, KANEKO, Omaha, NE (group exhibition, 2017).
- “Real life Minecraft interface”, PLAY, KANEKO, Omaha, NE (group exhibition, 2015).
- Artist-in-Residence, University of Nebraska at Kearney, Kearney, NE (two-person exhibition, 2012).

## **Collaborations**

- Circus of the Senses, Bemis Center for Contemporary Arts, Omaha, NE (collaboration with Emilie Baltz, 2015).
- Circuit of the Senses, Bemis Center for Contemporary Arts, Omaha, NE (collaboration with Emilie Baltz, 2015).
- Human Harp, Bemis Center for Contemporary Arts, Omaha, NE (collaboration with Di Maintsone, 2015).

## **Teaching**

- DIY synthesizer build workshop at SOUNDRY at KANEKO (2016)
- How to Make Almost Anything at MCC FabLab (2015)
- Circuit bending workshop at SOUNDRY at KANEKO (2015)
- Maker Corps Mentor at Omaha Children’s Museum (2014)
- STEAM micro-workshop for Girl Scouts at UNK (2012)
- Interactive and Generative Art at UNK. (2011)