

BRUCE DRUMMOND

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SENIOR UX ENGINEER & DESIGN TECHNOLOGIST

Senior Software Engineer – Senior UI Engineer – Senior Front End Engineer – Senior Creative Technologist

SUMMARY

Full-stack generalist with an exceptional record of success as a designer and developer of websites, mobile apps, games, interactive installations, backend systems, APIs, audio production apps, and extended reality (XR) experiences. Highly adept at managing and executing all project phases, including conceptualization, design, development, prototyping, testing, and delivery. Special expertise in UX/UI design principles and best practices. Background includes graphic design, art direction, animation, and music composition. Excel at communicating ideas and concepts effectively to technical and non-technical teams, preparing proposals and pitches, and building strong relationships with clients.

Key Skills:

Solution Development – Technology Leadership – Problem Solving – Graphic Design – Visual Design – Prototyping
Extended Reality (XR) – Quality Assurance – Accessibility – R&D – Agile Methodologies – Innovation – Design Systems
Responsive Design – Front End Development – Back End Development – Full Stack Development – Game Development

Demonstrated Value:

- Executed the development of innovative prototypes for Google Nest devices, including mobile, tablet, and web apps.
- Built multiple augmented reality (AR) experiences, and several XR prototypes for clients of ustwo.
- Led the development of the Go Go Bots game for Facebook, which garnered coverage from *The Verge*, *Engadget*, *Creative Review*, and *VentureBeat* for ustwo.
- Created technical project architecture and processes, production code, unit tests, documentation, and more for clients of ustwo. Led automation, sprint planning, and code reviews.
- Increased efficiency at Potion Design by creating a user-centered design toolkit for concept generation.
- Designed innovative touchscreen and projection-based interactive installations comprised of physical computing, custom electronics, lighting, and computer vision for Potion Design's clients.
- Developed a multi-location interactive installation (Forest of Friends) for OSU Wexner Medical Center, at Potion Design, which won a Communication Arts Award of Excellence and allowed pediatric cancer patients to create personalized animal companions.
- Built a website (What Do You Love) for Google Creative Lab while with Big Spaceship, which received a W3 Award for Best in Show (Website), Golden Award of Montreux Gold Award (Consumer Products), and Tomorrow Award.
- Provided the front end development for Hewlett-Packard's internal communication platform while at Big Spaceship.

TECHNICAL EXPERTISE

Development Tools: JavaScript (Vue, React, Node, Express, JQuery, Jest, Gatsby), TypeScript (Angular, Cocos Creator), PHP (WordPress, CodeIgniter), HTML (Jade/Pug, Handlebars), CSS (SCSS, SASS, LESS, Tailwind), GraphQL, AWS (EC2, S3, EBS, RDS), Azure (Functions, Logic Apps, PlayFab), Heroku, Netlify, C++ (Cinder, OpenGL, GLSL), Objective-C, C# (Unity, AR/VR), Docker, GitHub, Travis CI, Visual Studio, VSCode, CLI, Xcode, Python, Contentful, MySQL, SQLite, ActionScript (Flash/Flex), Spark AR, Webpack, Grunt, Gulp, Rollup, GCP (App Engine, Cloud SDK), zsh

Software: Figma, Sketch, Photoshop, Illustrator, Zeplin, Logic Pro, MS Office

Hardware: Oculus, HoloLens, Leap Motion, Arduino, Touch screens (MultiTaction, IR frames), DMX controllers, LED strips, depth cameras, projectors, and more

Platforms: MacOS, Windows, iOS, Android

PROFESSIONAL EXPERIENCE

GOOGLE, New York, NY

2022 – 05/2023

Senior UX Engineer (consultant)

Carried out the development of high-fidelity product feature prototypes for Google Nest Cameras and Doorbells, including mobile, tablet, and desktop web apps. Actively involved in UX research studies for product and engineering decision-making. Participated in performance testing and new feature brainstorming meetings. Worked closely with UX team.

- Delivered a high-fidelity desktop browser-based prototype for a feature user study.
- Built a prototype used for testing new Google Nest Door Lock mobile app product features.
- Produced prototypes that facilitated user research and validation studies based on user needs.

USTWO, New York, NY**2016 – 2022****Senior Developer**

Created websites, backend applications, games, and XR experiences for clients. Authored unit tests and technical documents. Executed all project phases, including conceptualization, development, design, and prototyping. Performed code reviews. Prepared project plans and CI/CD pipelines. Validated the technical feasibility and performance of product features. Assisted with business proposals. Served as a Technical Lead and coordinated project teams. Clients included Meta, Vibrant Emotional Health, Samsung, and SSENSE. Partnered with designers, engineers, QA teams, and product managers. Architected solutions to client problems. Acquired client requirements for projects.

- Designed and delivered reusable UI components, backends, and front ends for projects.
- Contributed to revenue growth by scoping and estimating projects and new product features.
- Coded a complex finite state machine that was implemented in Cocos Creator and Spark AR games.
- Provided the code for a state management system that enabled developer adoption and streamlined implementation. Utilized reusable code to reduce project timelines by 2 weeks.
- Facilitated the easy scaling to over 600,000 monthly active users for the Go Go Bots game by implementing a high-performing backend solution.
- Increased Go Go Bots performance to 30-60 fps by introducing a custom frustum culling system and reducing load times by consolidating API requests.
- Designed a custom level editor for Go Go Bots to streamline the level design process and enable designers to rapidly create, test, and iterate game levels.
- Constructed a mobile-friendly, scalable version of a website by implementing a high-performance serverless architecture. The project resulted in additional projects from the client.

POTION DESIGN, New York, NY**2013 – 2016****Senior Developer**

Developed interactive installations, websites, backend solutions, and iOS apps for clients. Created project estimates, scopes, architectures, and build pipelines. Determined technical feasibility. Mentored junior developers and interns. Assisted with business proposals. Delivered open source CinderBlocks. Planned and managed projects.

- Developed XR experience prototypes and iPad apps.
- Improved the performance of a legacy interactive installation by migrating to new code, software, and hardware.
- Authored or co-authored 3 open source libraries utilized for numerous interactive installation projects.
- Carried out the development of apps and backends that received major coverage from *Wired*, *Cool Hunting*, *Design Matters*, *Vanity Fair*, *Harper's Bazaar*, and *Brit+Co*.
- Created a novel interactive experience that is now a permanent exhibit at the Brooklyn Historical Society and was featured in *The Wall Street Journal*, *The New York Times*, and *Brooklyn Eagle Daily*.

BIG SPACESHIP, New York, NY**2011 – 2012****Technologist**

Responsible for website, frontend, backend, API, and iOS app development. Supported external and internal clients. Performed prototyping and QA testing.

- Developed a website for Shake Shack that won a Webby Award (Food & Drink) and a Communication Arts Award (Webpick of the Day).
- Enhanced productivity by building and deploying an internal blogging platform for the company.
- Completely developed a high-fidelity prototype advertising product for mobile and desktop devices that became a new offering for Vibrant Media and received press coverage in *TechCrunch*.
- Delivered a mobile-friendly version of a legacy drawing game.

AVIARY, New York, NY**2010 – 2011****Software Engineer**

Developed and maintained features for the company's 2 flagship online audio production apps (Myna, Roc).

- Personally developed an open source SDK for the company's web photo API.

PARSONS SCHOOL OF DESIGN / THE NEW SCHOOL, New York, NY**2010****Faculty (part-time)**

Instructed MFA-level course (Creativity & Computation) that covered programming concepts and creating art with code.

ACTIVELEMENT SOFTWARE, Pune, India **2006 – 2007**
Project Manager
 Oversaw the design and development of websites, Flash apps, logos, and brand collateral for a variety of US-based clients. Supervised several designers and developers. Served as the point of contact for clients. Managed complete project life cycles from conceptualization to delivery.

ADDITIONAL EXPERIENCE

BRUCE DRUMMOND, India / US **2003 – Present**
Independent Designer / Developer

- Designed and developed websites, WordPress themes, Flash Apps, logos, web banners, brand collateral, book covers, animation, motion design, murals, and more. Also composed music for films and commercials.
- Won a World Wide Web Awards Gold Web Award for the Adina's Deck website. Designed and developed the logo, brand collateral, site and composed the music for the associated film series.

APTARA, Pune, India **2004 – 2006**
Associate Art Design Manager

- Led projects involving the design of interfaces, graphics, and animated content for corporate learning presentations.

ATI UNLIMITED, Pune, India **2004**
Animator

- Produced character animation and background art for a film. Also designed websites and animated presentations.

DECIBELS DESIGN STUDIO, Pune, India **2003 – 2004**
Art Director

- Directed multiple projects involving logo and brand collateral design.

TRIPMEDIA, Pune, India **2002**
Graphic Designer

- Carried out website, POS icon, and Flash app design. Supervised up to 8 designers and developers.

EDUCATION

MFA in Design & Technology (with Honors), Parsons School of Design / The New School, New York, NY

- Research Assistant. Designed and developed websites, backends, and a mobile game for several affiliated schools, centers, institutes, and research projects.
- Instructed the Creativity & Computation Lab and the Design, Code & Web Bootcamp as a Teaching Assistant.

Graduate Course Work in Computer Arts & New Media, Academy of Art University, San Francisco, CA

Post-Graduate Diploma in Advertising & Public Relations Management, Symbiosis Institute of Business Management, Pune, India

Advanced Diploma in Web Design, Microcell Multimedia, Pune, India

BComm with majors in Company & Labor Law and Public Enterprises & Government Business, University of Allahabad, Allahabad, India

Diploma in Multimedia, Arena Multimedia, Allahabad, India

SUPPLEMENTAL INFORMATION

Presentations: Complete list of presentations and posters available on request.

Additional Awards: Communication Arts Best Interactive Product (Tablet/Handheld) – Interaction of Color, Spark Design Awards Spark! Winner (App Design) – Interaction of Color