

Kevin Reilly

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SUMMARY

I am a creative software and hardware engineer with experience in product development, project management, design, and client engagement. From validating chip designs to creating interactive art installations my work spans across many fields and technologies. Focusing on constant learning, experimentation, and courageous exploration I am driven by the philosophy that any problem can be solved with enough determination and creativity.

EXPERIENCE

Founding Partner_Technology, vûrv collective - 2015 - current

- vûrv is a new media arts collective founded in Austin, TX. Four partners guide the creation of major works while enabling all members to produce their own pieces and explore new technologies and art.

“mujō” - 2017

- This interactive dance experience seeks to combine the two key elements of a concert: the music and the crowd. Using computer vision, dramatic audio reactive visuals are only revealed when movement is detected, encouraging the crowd to dance.
- Demo Prototype Video: <https://vimeo.com/217004520>
- Technologies used: OpenGL, OpenCV, openFrameworks, C++, Python, Quartz, IR Camera and Lamps, Kinect, holographic projection

“Flow Factory” - 2016

- Funded by the City of Austin’s Art in Public Places grant this was a pop up interactive installation that engaged people to create art by skipping.
- By 3D printing a custom mount that embedded a wireless chip, accelerometer, battery, and LEDs into a Skip-It, a popular 90’s toy, the audience was able to interact with the artwork.
- Projected onto a large screen generative sound and visuals were manipulated by the speed and rhythm at which the user and user’s partner skipped.
- Demo Video: <https://vimeo.com/187372628>
- Technologies used: C, Python, Quartz, MaxMSP, IMU Sensor Chips, ws2812 LEDs, ESP8266, Rhino, 3D Laser printer

Capital Factory Projection Mapped Mural – 2015

- Transformed a 5’x8’ painted mural into a dynamic glowing branded sign. To encourage photographs to be taken in front of it, an ultra short throw was used to give an unobstructed projection within 5” of the wall.
- Image: <http://i.imgur.com/T1tnKX6.jpg>

Technology Consultant, Base Jump - 2011 – current

- Formed a boutique consultancy with a focus on servicing all of our clients needs including building teams, mobile and web development, creative work, managing projects, UX design, architecture specification, and R&D.

“What is love?” - 2016

- An intimidating black 7’ prism structure that pulsed in sync to the sound of a heart beat. Inset into it was an iPad engaging the user to answer the question. LED panels scrolled responses around the top. It was completely solar powered.

Austin Maker Faire Installation - 2015

- “Digital Dreamer” was a temporary interactive installation for Austin Maker Faire. An 8’x15’ painted mural of Rip Van Winkle came to life by animations mapped onto it. Users controlled the passing of time from night to day by spinning a clock dial and four capacitive touch points triggered animations of whimsical dreams including flying elephants, a water monster, and a mischievous gnome.
- Demo Video: <https://vimeo.com/128530489>

Product Development Executive Consultant, swipejobs 2014 - 2015

- Created a mobile web app for local job searches from beginning to end-starting with user interviews and completing by hiring a team for ongoing development.
- Backend consisted of custom internal APIs, consuming and processing multiple large scale 3rd party databases both in real-time and batched, and maintaining a massive dataset of user interactions for data analysis. Custom algorithms were developed to handle the unique challenge faced by single job postings being duplicated across multiple databases each formatting and summarizing the positions differently.
- Technologies used: Java, Python, SQL and NoSQL databases, AWS services, HTML5/CSS3, Javascript

Product Architect Consultant, Swift Sensors - 2014

- Researched and advised on solutions for creating an array of ultra low power BLE sensors to record and transmit data to a time structured database used for data visualizations. Focus was on manufacturing cost effective hardware with a server designed for high volumes of data being recorded asynchronously.
- Technologies used: Python, influxDB, Graphite

“Open byWelcome” - 2014

- An access control system using iBeacons to unlock doors demoed at Capital Factory during SxSW. User administration controlled by Pingboard’s API.
- Physical lock control was achieved by creating custom hardware that integrated with the current access control system.

Creative Software Engineer Consultant, Chaotic Moon Labs 2013

- Architected and developed, both HW and SW, for two custom installations for Caesars Palace. One was a 60” touch screen kiosk that complemented their mobile app and gave a curated exploration of the shows, shops, and restaurants for The Linq property. The other was 8’x20’ screen with abstract visuals that enticed people closer eventually revealing a collage of advertisement for shows, social media streams, and pictures controlled gesturally.
- Technologies used: An array of Kinects, IR touch frames, C++, C#, Processing, openFrameworks

Additional clients

- Houston Area Realtors,
 - A real estate app for the largest realtors association in America.
 - Over 1,000,000 installs and 70,000 active users
 - Technologies used: Android, iOS
- Phriz.be
 - A cross platform location based file sharing mobile app.
 - Debuted at CES by Qualcomm.
 - Worked with Qualcomm engineers to develop their AllJoyn Framework for iOS and Android and integrate it into the app.
 - Technologies used: iOS, Android, Windows Mobile, C#, Google App Engine
- Pingboard, Scott & White, and Harvard Medical School

Data Analytics Software Engineer Intern, Vast.com 2011

- Created a visual dashboard based on real time web traffic for the company's lobby.
- Researched a predictive model that identified most probable purchase dates and locations for houses to be incorporated into Vast's search engine. Defined user stories which were then validated with data analysis of prior homebuyers search traffic.
- Technologies used: Hadoop, Processing, Java, Javascript.

Software Validation Engineer, Intel Corporation 2009 - 2010

- Developed tests for an experimental project that decreased emulator execution time by a factor of 50 and compressed test storage by a factor of 1000 for the graphics sub-block on the Atom SoC product line. Scripted translation of all existing tests to the new standard as a proof of concept.
- Built a program in Python that configured the testing environment, compiled code, assigned an experiment to a specific test platform, executed, and reported results on the fly.
- Technologies used: C, C++, Perl, Python, and Intel proprietary languages.

EDUCATION

The University of Texas at Austin 2003-2008

Major: Computer Science, Turing Scholar

SKILLS

Languages: C, C++, Objective C, Java, Python, Processing, OpenGL

Libraries: openCV, openFrameworks,

ACTIVITIES

- Austin Interactive Installation Meetup Co-Organizer
- Robotics Instructor for after school program with Communities in Schools
- Designed and led "ElectroCUTE" a 90 minute workshop for the 2016 Creative Mornings Leadership Summit that began with an LED and battery and ended by creating a capacitive touch sound board.