

Jerad Acosta

Data Analyst Explorer and Storyteller

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Experience

Project Manager, Technical Consultant at Digital Foundry

June 2015 - September 2016 (1 year 4 months)

Developing global products, with multiple teams, employing every of my abilities while acquiring new experiences and knowledge for those I need. All with the purpose of impact and the success of a team I'm thrilled to support.

At DF:

I enable the agile development of high quality and quick to market software solutions.

Connected homes, IoT, financial benchmarking software, strategic planning and technical consulting, banking and transactional web and desktop platforms.

Companies come in with a problem and leave with a Vision, Strategy, Solution and Implementation for a full stack, custom built software based solution.

My teams have developed global connect home products supporting 10 languages across more than 14 countries, social commerce platforms and completely redesigned and implemented solutions for the the largest global payments corporations.

Product, Solutions, Strategy, NPO-CoFounder at irHacker

January 2012 - June 2015 (3 years 6 months)

- Lead multiple teams in the successful research and development of new products and innovations
- Applied Agile methodology to R&D and product development iterations
- Taught workshops on novel and interesting technologies such as lean startup methodologies, 3D printing, robotics, Arduino, Data Analytics, financial derivatives investing and modeling, content creation and management

A non-profit company inspired by the difficulties encountered in acquiring equipment and expertise necessary for conducting research, getting hands on experience, and developing ideas into products. I led workshops teaching a range of skills from analog circuit design to robots and programming as well as investment strategies and lean startup principles. We also partnered with local research facilities and other non-profits to help turn ideas into reality by leveraging technology and experience to solve novel problems of interest.

Data Analyst at SmashApps LLC

January 2012 - January 2014 (2 years 1 month)

A technology enhanced learning company that sought to improve self learning environments commonly found in online classrooms and MOOCs. In my many roles I was:

- product inventor
- Data Analytics - Natural Language Processing, Predictive analytics, data modeling
- Interface Designer (UX, UI, storyboard, personas)

My background in Cognitive Science was used to design a system which could monitor students as they learned and provide real-time feedback on things such as notes and whether they were up to par with other students and the professors intended material.

Research and Product development at California Institute for Telecommunications and Information Technology

January 2012 - April 2013 (1 year 4 months)

- Research and Development (Neuroscience, Neurophysiology, Analog and digital circuits, Micro Controllers, Piezo Actuators)
- Software Development (C, Arduino, Processing Languages)
- Interface design and production (designed and 3D printed physical product interface)

I began my time at in the SmartSpaces lab at the Qualcomm Institute as a Jacobs Scholar. My initial role was to research and develop a novel method for Human-Computer Interaction. Using my education in neuroscience I quickly identified a novel approach to creating tactile feedback for users in digital environments. I subsequently used electrical engineering, programming, and rapid prototyping to design, 3D print and build a mouse which could provide texture feedback to the user from a program (i.e. wave your mouse over a picture of sand to feel “rough” texture and over glass to feel “smooth” texture from the actuators on the mouse). I entered my invention in the ECE Design competition and am very proud to believe that this or similar technology will someday change the way we interact with digital environments, allowing us to feel virtual objects as I demonstrated with my prototype.

Research and Development Engineer at CAMP / LSAMP

June 2011 - February 2012 (9 months)

- Neuro Electrophysiology Research
- Brain-Computer Interface Developer (Analog circuits, Micro Controller, Programming in C, Java, Processing)
- Subject Trial Researcher (designed and ran experiments on over 20 subjects in a controlled experiment)
- Received award for Research and Presentation at Annual LSAMP Research Symposium at UCI

Inspired by what I believed to be poorly design equipment and research protocols for EEG experiments and fueled by a personal interest in Brain-Computer Interfaces (BCIs), I conducted research on Neuro-Electrophysiology.

After believing I had an solution to the common plagues of BCIs and EEG research (such as signal-noise ratio and environmental conditions) I proceeded to teach myself analog circuit design and well become familiar with operational and instrumental amplifiers. Using my research and new knowledge I invented a non-invasive active electrode Brain-Computer Interface which was able to outperform standard lab equipment both in and outside of the laboratory.

I used this device to conduct my own research experiment to determine how long it took for subjects to acquire conscious control over the digital output of my device. This research was presented by me at annual LSAMP research symposium for which I received an honorable award and recognition.

Ethnographer at UC San Diego Health System

January 2011 - April 2011 (4 months)

I conducted ethnographic studies at the Radiology center at UCSD's HillCrest medical center. I was responsible for collecting data on how the radiologist interacted with and worked in their environments as well as creating detailed workflows. This required me to observe the radiologists in practice as well as become familiar with the software they used and gain a working understanding of the purpose and practice behind their work as radiologist. My findings and subsequent consultations found valuable and used in the creation of a new radiology center.

Skills & Expertise

Data Analysis

Data Science

Statistics

R

Matlab

Python

Data Visualization

Jupyter iPython Notebook

Machine Learning

Internet of Things

Data Story Telling

Scrum

Project Management

Strategic Thinking

Human Factors

Strategic Analytics

Data

Swift

Quantitative Analytics

Human Computer Interaction

Ethnography

User Experience

Start-ups

User-centered Design

Sailing

Research

Usability Testing

Public Speaking

JavaScript
Interaction Design
User Experience Design
Information Architecture
Product Design
Human Factors Engineering
Java
User Interface Design
Qualitative Research
Nonprofits
Rapid Prototyping
iOS development
Artificial Intelligence
Social Media
Mobile Applications
Financial Analysis
R Programming
Social Entrepreneurship
Sketch App
Business Analytics
Technical Consulting
Docker

Education

Johns Hopkins Bloomberg School of Public Health (via Coursera)

Specialized Grad Certification, Data Science, Analytics and Machine Learning, 2014 - 2015

Activities and Societies: Graduated with Distinction in multiple areas from R Programming to Exploratory Data Analysis, Machine Learning and Developing Data Products

University of California, San Diego

Minor, Applied Mathematics, 2011 - 2013

Activities and Societies: Jacob's Scholar, LSAMP Scholar, Awarded High Recognition for Poster-board and Presentation at the Annual Statewide CAMP Research Symposium, CalIT2 Scholar, Math Club, IEEE Member, Jr. IEEE Student Organization, Lead research on Tactile and Haptic Interfaces for Video Processing Lab at California Institute for Telecommunications and Information Technology

University of California, San Diego

Bachelor of Applied Science (B.A.Sc.), Cognitive Science, Natural Computation and Machine Learning, 2009 - 2013

Activities and Societies: Cognitive Science Student Association (Served As: President '12, Vice President '11, Professional Network liaison '10, Alumni Coordinator '13-'14), Calit2 and Jacobs Scholar, LSAMP Scholar, Math Club, CAMP, Human-Computer Interaction Lab Researcher, Cognitive Neuroscience Lab Researcher, Qualcomm institute Video Processing Lab Researcher, Jr. IEEE Student Organization, UCSD Sailing Team

Certifications

The Data Scientist's Toolbox

Coursera Verified Certificates License NJCD5BWLTK September 2014

R Programming

Coursera Verified Certificates License WK8AY4RJ3L September 2014

Getting and Cleaning Data

Coursera Verified Certificates License 8TTU37A4AQ November 2014

Exploratory Data Analysis

Coursera Verified Certificates License 86Z7NJH2PW November 2014

Reproducible Research

Coursera Verified Certificates License UBCHFUQD7K November 2014

Regression Models

Coursera Verified Certificates License 84CBMGCUQ3 December 2014

Practical Machine Learning

Coursera Verified Certificates License HTZ9ZYP852 February 2015

Developing Data Products

Coursera Verified Certificates License NULEMY9M7D February 2015

Statistical Inference

Coursera Verified Certificates License HAZUCBEJS5 December 2014

Scrum Master

cPrime, Inc. June 2015

Intro to Python for Data Science

DataCamp License d40f555e586ccfeece23192a19d8ab01e5a3a3c3

The Arduino Platform and C Programming

Coursera Course Certificates License SJ2JMLEWPH23 August 2016

The Arduino Platform and C Programming

Coursera Course Certificates License SJ2JMLEWPH23 August 2016

Intro to Python for Data Science

DataCamp License d40f555e586ccfeece23192a19d8ab01e5a3a3c3

Data Science and Analytics Career Paths and Certifications

Lynda.com License 046C4F November 2016

Programming: iOS 9 and Swift

Lynda.com License 01FA72 November 2016

Introduction to Data Science

Lynda.com License 760873 November 2016

Introduction to Data Governance

Lynda.com License 03C2F7 November 2016

Summary

Determined to shape the world as I tailor my sails; fly against the wind and build a better world; leverage technological innovation to connect, analyze, educate and iterate.

Volunteer Experience

Team Lead & Human Factors Engineer at Global TIES, UCSD

2010 - 2011

Our team was responsible for the sustainable energy solution and storage for an off-grid library near Ghana. As team lead I was responsible for deadlines, organization and planning as well as empowering my team of six engineers to feel comfortable and confident in their ability to accomplish our task.

As Human Factors Engineer felt my passion align with my aptitude. After praising the design our engineers developed for a highly efficient wind generator (over 70% more effective than required) my simple question "What happens if it breaks?" led to an innovative solution by which we were able to scale our effort in a much larger way than previously planned for.

My research, methodology and insight led to a simpler, though less efficient, design that was composed of a car alternator and plumbing materials easily acquired by the locals. Our solution was made so that while in function, the device's workings were easily deduced by the casual observer. This allowed our wind turbine to not only power the library but also be replicated by individuals so that off-grid houses could replicate the power source for their own homes - an innovation with the power to reach far beyond its intended function and population.

Projects

Team Lead / Inventor

May 2012 to Present

Members: Jerad Acosta, Erik Musil, Ramsin Khoshabeh, Jason Juang

This project was a response to a challenge set forth by UCSD Jacobs School of Electrical Engineering, CalIT2 and Rady School of Management, SENSE FUSION, to integrate a multidisciplinary approach to integrating Human and Computer sensing technology with the goal of making a significant impact in everyday life.

As a Jacob's Scholar I conducted research in psychophysiology and neurological mechanism of touch and sensing texture. Using my research stipend I developed a prototype: a computer peripheral that could send touch feedback to users.

As team leader I sought out talent and dedication in my Lead Engineer, Erik Musil, who was not only able to see and implement my vision but also played an imperative and valuable role in making the device function as well as consideration for future iterations of the product's evolution.

When our project completed, we had created a working mouse that could interact with programs sending touch and texture feedback to the user, "Allowing users to 'feel' objects they interacted with on screen"

My responsibilities included:

Project Management
Leadership
Human Factors Engineering / Design / Analysis
Financial Budgeting and Management
Programming - Arduino, Java, Processing
Hardware & circuits - Analoge, Piezo, Actuators
Marketing, Social, Media, Sponsorship

Honors and Awards

Honorable Recognition

LSAMP

February 2012

I received an honorable mention as my research and development resulting the creation of an active electrode brain-computer interface came runner up in the 2012 Annual LSAMP / CAMP research Symposium. The device I invented was used in an experiment to show how quickly subjects could gain conscious control over previously unknown actions such as the manipulation and attenuation of brain waves created from the synchronized firing of large network of neurons. Additionally the device was shown to be more accurate than traditional EEG lab setups as well as be worn and used outside in real-world environments and situations.

As a proof-of-concept the device was interfaced with a MIDI music production system that allowed users to consciously create music by manipulating their own brain-wave functions.

CalIT2 Jacobs Scholar

University California San Diego

June 2012

The summer of 2012 into winter of 2013 was spent as a CalIT2 summer scholar into a Jacobs scholar. While employed under the Jacobs and CalIT2 scholarship program I conducted research into novel forms of human computer interaction. I worked in the Video Processing lab with glasses free 3D parallax screens and real-time body tracking sensor. There I developed and researched a novel form of tactile feedback which, paired with specially developed software, provided users with texture feedback from digital objects

Courses

Minor, Applied Mathematics

University of California, San Diego

Econometrics	Econ 120 A&B
Probability Stochastics	Math 180 A&B
Teams in Engineering and Science	Eng 100 A&B
Numerical Analysis	Math 170 A&B

Specialized Grad Certification, Data Science, Analytics and Machine Learning

Johns Hopkins Bloomberg School of Public Health (via Coursera)

Developing Data Products
Practical Machine Learning
Regression Models
Statistical Inference
Reproducible Research
R Programming
Data Scientist's Toolbox
Exploratory Data Analysis
Getting and Cleaning Data

Bachelor of Applied Science (B.A.Sc.), Cognitive Science, Natural Computation and Machine Learning

University of California, San Diego

Natural Computation Cogs 109

Machine Learning Artificial Intelligence Cogs 112 A&B

Cognitive Ethnography Cogs 160

Game Theory Econ 109

Neuro-ElectroPhysiology Cogs 170

Interests

Venture Enterprise, Investing, Sailing, Surfing, Creating and appreciating Creations

Languages

English (Native or bilingual proficiency)

Spanish (Professional working proficiency)

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2 person has recommended Jerad

"I had the pleasure of working under Jerad's project management as a software developer. If Jerad, his skill set and life experience were broken down and expressed as a work week, it might go something like this. On Monday, the man would sail the seas, run a startup, have a jam session with Tool and built a neural hardware interface to imitate virtual material textures on the fingertips of a glove. Tuesday would be spent shepherding the relationships between a hardware team in Hong Kong, sales in Poland and Germany, marketing in the UK, front end development in San Francisco, back end development on the East Coast and all stakeholders via phone, e-mail or message pigeon. Wednesday, he would be discussing the latest Maker trends and building Arduino setups that would make Q smile. On Thursday you might find him producing his own music, programming in R or writing a JIRA plugin to more accurately track the analytics of the daily story point burn down. Friday means it's off to the local HackerSpace for workshops on creating a positive social impact with innovative technology, taking liberal usage of 3D printers and Raspberry PIs. Saturday is spent taking online courses in various topics such as product strategy, machine learning, data analytics and anything to do with distributed intelligence, IoT, and novel human-technology interfaces. On Sunday, he assesses the previous week for areas of improvement and makes a plan for next week. All of this is done while leading a software development project for a global client where he is able to apply his technical skills, shared knowledge and life experience to deliver an exceptional product that is delivered on time."

— **Ryan Warren**, *Software Engineer, Digital Foundry*, reported to Jerad at Digital Foundry

"Jerad is one of the best product managers that I have had the pleasure to work with. He truly cares about how to increase the value of a product by paying attention to every detail of its development. Jerad is extremely tech savvy and embraces learning new skills, technologies and strategies to ensure that whatever product he is working on will stand the test of time. He is extremely intelligent and is able to discuss competently in detail of every aspect of a product including high level business strategy, user experience, software implementation, and hardware implementation. Jerad fluently speaks the languages of business, engineering and design. His personality and general wealth of knowledge enable his teammates and peers to work at a higher level of productivity and comfort, ensuring the best end product possible. He is absolutely a person that you want to have on your team."

— **James Meinerth**, *Production Designer, Digital Foundry*, worked directly with Jerad at Digital Foundry

[Contact Jerad on LinkedIn](#)