Tomás Vega

tomasvega.com | me@tomasvega.com | 510.710.4699

EDUCATION

UC BERKELEY
Computer & Cognitive Science
Exp. May 2017 | Berkeley, CA
Cognitive Technology Group | Co-Founder
Kairos Society | Fellow

MARKHAM COLLEGE
Grad. Dec 2011 | Lima, Perú
IB CompSci Higher Level Award
IGCSE Computer Studies

LINKS

Github: **tomasero**
LinkedIn: **vegatomas**
Hackster: **tomasero**

COURSEWORK

GRADUATE
Critical Making
Interactive Device Design
Neural Computation
Software Defined PCB Design

UNDERGRADUATE
Data Structures
Machine Structures
Microelectronic Circuits
Algorithms
Networking
Operating Systems
Software Engineering
Human Learning & Memory
Cognitive Neuroscience
Philosophy of Perception
Artificial Intelligence
Spanish Electronic Literature
Neural Circuits
Embedded Systems

SKILLS

SOFTWARE
Proficient
C • Python • Java • Obj-C
JavaScript • C++ • Git
HTML • CSS • Unix • tmux
Familiar
Swift • Ruby • LaTeX • Stanza

HARDWARE
Proficient
Eagle • Fusion360 • Cura
LPKF CircuitPro • Otherplan
Familiar
SolidWorks

FRAMEWORKS
Node.js • React.js • jQuery
Sinatra • Rails • Flask • Cocoa

EXPERIENCE

UC BERKELEY | Research Assistant at the Tactical Hybrid Ecologies Lab
January 2015 - Present | Berkeley, CA
Developed hardware and software to control color-changing textiles in response to variable biometrics. Published in DIS '16. Built AlterNail, a fingernail-shaped, low-power, stateful, wireless, dynamic display with vibrational sensing. Currently trying to augment human cognitive capabilities.

UC BERKELEY | Inventioneer at the Citris Invention Lab
August 2015 - Present | Berkeley, CA
Hold weekly lab hours at the CITRIS Invention Lab, a rapid prototyping workspace at UC Berkeley. Teach and supervise the use of basic craft tools, electronics, laser cutters, 3D printers, & PCB mills.

APPLE | Intern at the Siri Advanced Development Team
Summer 2015 and 2016 | Cupertino, CA
Developed a variety of prototypes of new interactions involving Siri and pitched them to high-ranking executives including a senior vice president. Filed 2 patents based on work.

PROJECTS

WHEELSENSE | Arduino • Fusion 360
August 2016 | Personal Weeklong Makeathon, Los Gatos, CA
Augmented wheelchair that provides frontal step-off, backward obstacle and lateral ramp-edge detection.

LA SINAPSIS COLECTIVA | Node.js • MongoDB • Twilio • Twitter
February 2016 | UC Berkeley ISPE Hack for Humanity
A platform for creating community-based narratives and poetry using Twitter and SMS messaging.

ALIVIARÁ | Eagle • Arduino • iOS • Python
February 2016 | UC Berkeley ISPE Hack for Humanity
A rehabilitation system that aids people with arthritis improve joint flexibility and reduce pain.

SYNTHSENSE | Eagle • Arduino • iOS • Fusion 360
October 2015 - December 2015 | Interactive Device Design, Berkeley, CA
An open-source, bluetooth-enabled Augmented White Cane (AWC) that provides both obstacle avoidance and navigation assistance for the visually impaired.

BIOKNEEK | Arduino • iOS
November 2015 | UC Berkeley 3DMC 3D Printing Makethon for Assitive Technology
A bluetooth-enabled prosthetic foot that, using haptic feedback, helps users distribute their weight properly on their prosthetic leg, preventing muscle atrophy and bone density loss.

SMARTASS | Arduino • iOS
September 2015 | Bay Area Makeathon for Assistive Technology
A bluetooth-enabled pressure-sore prevention device for wheelchair users. Won 2 awards.

MY.FLOW | Arduino • Eagle • Fusion 360
May 2015 | Critical Making, Berkeley, CA
A smart BLE tampon adapter that senses saturation and sends an alert when it's time to change.

MINDKINETICS | JavaScript • Arduino • Python
January 2015 – March 2015 | Exploratorium, SF, CA
A professional exhibit housed at the Exploratorium: a mind controlled robot arm. Developed the neurofeedback training interface, data pipeline, and embedded code. Code.

AWARDS & HONORS

1st Place February 2016 | UC Berkeley ISPE Hack for Humanity
1st Place November 2015 | UC Berkeley 3DMC 3D Printing Designathon
Google.org Award for Innovation & TechShop Award for Self Manufacturing
September 2015 | Bay Area Makeathon for Assitive Technology
Editor's Choice Award: my.Flow May 2015 | Bay Area Maker Faire
1st Place in IT for Society & 1st Place in Grand Prize Pitch Day:
Campus & Community Impact April 2015 | Big Ideas @ Berkeley
Pitched work-in-progress API to simplify the development of Brain Computer Interfaces.
1st Place, Most Technically Challenging & Most Awesome Hack
October 2014 | CalHacks
Created a mind controlled drone. We classified EEG data to control a quadcopter.