

# KYLE LOIZOS

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## EXPERIENCE PROFESSIONAL

**Director of Neuroscience Product and Sales** 01/2023 - Present  
Ripple, Salt Lake City, UT

Lead sales, support, and development/maintenance of products for neural recording and stimulation in human and animal studies. Manage accounts and connect with customers in a broad range of industries around the world, providing them with uniquely fitting electrophysiology research equipment to advance therapeutic and rehabilitative devices and basic neuroscience research.

**Research Support and Product Engineer** 02/2022 - 12/2022  
Ripple, Salt Lake City, UT

Supported neuroscience researchers in using electrophysiological recording and stimulation systems in animal and human studies (single unit recordings, neural prosthetic development, brain computer interface development, intraoperative monitoring, etc.). Built user requirements for custom products.

**Freelance Artist and Designer, Owner** 02/2021 - Present  
Kylo Creates LLC, Salt Lake City, UT

Commissioned digital product design and fine art: product design and prototyping in Figma, logo and icon design using Adobe CC tools, development using Swift, watercolor and pen/ink, mural design and painting.

**Director of Engineering** 02/2017 - 05/2021  
Teveri, Pasadena, CA

Directed the engineering and design team. Designed company's first products involving liquid metal based stretchable electronics and lab tools/processes for handling and interfacing with them. Products included: smart textiles, strain gauges, embedded systems, and stretchable electronics in medical, athletic, and defense applications. Principal Investigator for a \$1M Army award and on numerous grant applications.

**Engineer Consultant** 07/2015 - 02/2017  
Bend LLC, Salt Lake City, UT

One of the first hires at Bend (now Teveri). Designed and tested stretchable audio and data cables, graphic design/marketing for the company (business cards, logo, web design, etc.)

**Product Design Intern** 06/2015 - 07/2015  
IT<sup>2</sup>IS Foundation, Zurich, Switzerland

Tested software for modeling stimulation of retinal neurons and defining safety standards for implanted electronics.

## EXPERIENCE ACADEMIC

**Research Scientist** 04/2018 - 05/2021  
University of Southern California, Los Angeles, CA

Advised a team of graduate students in efforts to improve prosthetics for those with retinal and hippocampal neurodegenerative diseases. Role included project strategy, technical writing and editing, and software development of simulation tools.

**Research Assistant/Scientist** 06/2010 - 04/2018  
University of Utah, Salt Lake City, UT

Developed a simulation platform for modeling the interface between retina prosthetic electrodes and retina neural networks towards improving the efficacy of current rehabilitative and therapeutic devices. This included writing software in C++, NEURON, and Python.

**Teaching Assistant - Entrepreneurship in Engineering** 08/2016 - 12/2016  
University of Utah, Salt Lake City, UT

Lectured on turning an idea into a product and basic finances associated with starting a business. Consulted with students on project and potential business ideas.

**EDUCATION****Ph.D. Electrical and Computer Engineering**

University of Utah, Salt Lake City, UT, 2017

Dissertation: "A multiscale computational modeling platform for design and analysis of electrical neural stimulation"

**M.S. Electrical and Computer Engineering**

University of Utah, Salt Lake City, UT, 2014

**B.S. Electrical Engineering**

University of Utah, Salt Lake City, UT, 2014

Scholarships: Honors at Entrance, EE Direct Admission

**PATENTS****Fluidic Wire Connectors**

Teveri LLC

U.S. Patent 10931036. Granted December 2021

**Fluidic Wire Touch Sensors**

Teveri LLC

U.S. Patent 20190235671. Granted August 2022

**Clothes Hanger Recharger Device**

Teveri LLC

U.S. Patent 20190235671. Granted April 2019

**Liquid Level Sensor (Hydration Bladder)**

University of Utah

U.S. Patent 10161779. Granted December 2018

**PUBLICATIONS  
SELECTED****Color and Cellular Selectivity of Retinal Ganglion Cell Subtypes Through Frequency Modulation of Electrical Stimulation**

J. Paknahad, K. Loizos, L. Yue, M.S. Humayun, G. Lazzi

Scientific Reports, 2021

**Increasing Electrical Stimulation Efficacy in Degenerated Retina: Stimulus Waveform Design in a Multiscale Computational Model**

K. Loizos, R. Marc, M. Humayun, J. Anderson, B. Jones, G. Lazzi

IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018

**Virtual Electrode Design for Increasing Spatial Resolution in Retinal Prosthesis**

K. Loizos, C. Cela, R. Marc, G. Lazzi

IET Healthcare Technology Letters, 2016

**EXPERTISE**

**Neurotechnology**

**Liquid Metal Electronics**

**Fine Art**

**Product Conceptualization and Management**

**Team Management**

**Writing and Presenting Technical Work**

**OUTSIDE WORK**

**Cooking, Running, Mountain Biking, Working on Cars, Reading, Painting**