

# Benny Pin-Wei Chen, PhD

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## Education

### PhD, Rehabilitation Science

Washington University in St. Louis

### MA, Mind, Brain, and Behavior

San Francisco State University

### BA, Molecular and Cell Biology

University of California, Berkeley

## Skills

- An independent scientist
- Machine Learning Development
- Data visualization
- Health record mining
- Toolbox building
- Efficient communicator
- Problem solver
- Critical thinking
- Attention to detail
- Proficient in quantitative and qualitative data
- Understand medical regulation

## Programing Skills

- Python (Pandas, Tensorflow, Scikit-learn, Pytorch)
- MatLab (Signal Processing, PhsyioNet, EEGLab)
- R (Data Table, Caret, Keras, Shiny, zoo, Tidyverse, lubridate, ggplot, API access)
- Shell
- Data Visualization (R ggplot series, Python matplotlib)

## Summary

- 14 years of diverse clinical research background and data analytic experience.
- Focused on AI development and usage for medicine.
- 8 years of experience in highly regulated digital health development.
- 7 years of experience as project lead for healthcare projects.
- A seasoned project lead for an inpatient clinical trial at the best rehab hospital.

## Career History

April 2024 - Current

**Mobile Health Data Scientist** | Children's Hospital of Philadelphia

- Consult mobile health research for large government grants.
- Design scalable, cloud-based data pipeline for sleep or physical activity metrics.
- Develop machine learning algorithm to improve the accuracy in human activity detections.
- Data processing support for more than ten projects, and successfully support grant application for 3 NIH R01 grants.
- Develop a website for DXA scan z score calculator.

June 2021 – March 2023

**Project Lead** | Shirley Ryan AbilityLab (formerly known as RIC)

- Designed and implemented a machine learning algorithm for sleep stage detections in the stroke population—thought leader in the top research lab about AI and medicine.
- Successfully led a 9-member team and collaborated with allied health partners to conduct a large clinical controlled trial, resulting in improved hospital care.
- Under my leadership, successfully revamped operations and achieved objectives of a 4-million government contract within the year.
- Secured a \$3 million grant from the Department of Defense for developing and researching wearable sensors.

March 2020 – April 2021

**Managing Officer** | Military Service in Taiwan

- Recognized for the excellence in leading production among the military managing officers.

Nov 2018 – Oct 2019

**Co-founder and Director** | Proprio with PlatformSTL (Incubator)

- Secured a \$100k government grant to develop a machine learning-based digital health system for stroke monitoring.
- Spearheaded a startup team of engineers, scientists, and physicians to create a minimal viable medical software product for stroke patients.
- Demonstrated knowledge of entrepreneurship terminology through coursework.

Aug 2017 – Aug 2018

**Chief Communication Officer** | Sling Health (Non-profit Incubator)

- Developed policies for the startup incubator to increase efficiency and reduce costs.
- Negotiated university partnerships, resulting in \$20k savings in marketing expenses.
- Secured key investment partner to expand the startup teams and accelerate growth.

May 2014 – Dec 2019

**Researcher** | Washington University in St. Louis

May 2011 – May 2014

**Research Assistant, Lab Manager** | San Francisco State University

Sep 2009 – May 2011

**Research Assistant** | University of California, San Francisco