

Alexander Walczak

Education

University of California, Berkeley
Bachelor of Arts, Computer Science

Berkeley, CA
Fall 2013 - Spring 2017

Work Experience

Google LLC
Software Engineer, YouTube

New York, NY
March 2021 - Present

- Building features in the YouTube app to support the well-being of teens.
- Developing the YouTube Kids app to give kids a fun, accessible experience and parents peace of mind.

Apple Inc.
Software Engineer, Accessibility

Cupertino, CA
October 2018 - February 2021

- Created the iOS Magnifier app, which helps people with low vision to see the world.
- Co-invented People Detection, a feature that leverages iPhone depth sensors to help blind users detect people around them and maintain social distance.
- Supported the accessibility of first-party iPhone apps (e.g., Apple TV, Home, Mail).
- Presented a talk at WWDC, Apple's annual conference: *VoiceOver Efficiency with Custom Rotors*.

Adobe Inc.
Machine Learning Software Engineer

San Francisco, CA
May 2017 - September 2018

- Created a system of serving AI models to drive interactive features in Adobe Stock search.

Lawrence Berkeley National Laboratory
Undergraduate Research Assistant

Berkeley, CA
August 2014 - May 2017

- Studied the viability of a biosensor powered by the rotation patterns of *E. coli* flagella.
- Learned fluorescence microscopy and designed and 3D-printed a flow cell to run experiments.
- Wrote software to automate data collection and analysis of recordings of rotating bacteria.

Umbo Computer Vision
Machine Learning Intern

Taipei, Taiwan
May 2016 - August 2016

- Developed a program that learned to recognize and distinguish new objects and people using a webcam.

Community Service

Park Slope Volunteer Ambulance Corps
Emergency Medical Technician

Brooklyn, NY
June 2023 - Present

- Actively serving on the 911 system in medically underserved communities of Brooklyn.

Champlain Area Trails
Volunteer Trail Builder

Essex County, NY
April 2024

- Assisted in the construction of 2 miles of new trails and maintenance of 10 miles of existing trails in the Adirondacks.

Publications

T. Zajdel, **A. Walczak**, D. Sengupta, V. Tieu, & M. Maharbiz, "Towards A Biohybrid Sensing Platform Built on Impedance-based Bacterial Flagellar Motor Tachometry," *IEEE BioCAS*, Turin, Italy. October 2017.

Conference Abstracts

T. Zajdel, **A. Walczak**, D. Sengupta, V. Tieu, C. Ajo-Franklin, & M. Maharbiz, “Impedance-Based Electrochemical Readout of Bacterial Flagellar Rotation,” *Biophysical Journal*. June 2016. *Outstanding Poster Award*

Patents

Dour, Ryan et al. User interfaces for indicating distance. US Patent 11,670,144, filed August 10, 2021, and issued June 6, 2023.

Awards

Huang Scholars Program at UC Berkeley

Beijing and Taipei
Summer 2015 and 2016

– Award to study third-year Mandarin at the Princeton in Beijing language immersion program one summer followed by an internship in Taipei the next summer.

IARU Global Summer Program Scholarship

Singapore
Summer 2014

– Award to study of Southeast Asian culture and history at the National University of Singapore.

Hobbies

- Hiking
- Downhill skiing
- Travel (33 countries)
- iOS app development. Layout Studio is the app I created to let developers make apps from their phones.