

# James E. Roberts

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jamesroberts.dev

## EXPERIENCE

### INDEPENDENT

*Software Developer*

Columbus, OH

Apr 2022 – Current

- **Built a server / client application for streaming live sensor data** from an android phone to a desktop computer on the same network. Made Android app using Kotlin and Android SDK, desktop app with python, data stream uses TCP.
- Worked on a tool for generating workflow scripts, using python with tkinter for GUI development.
- Launched my **personal website, jamesroberts.dev**, built from scratch using React and hosted on github pages.
- **Made a custom home media server** for serving content to android devices. The server uses fastapi and is running on a Raspberry Pi 3A+, serving to an Android TV client application.

### PROMETRIC

*Software Developer*

Baltimore, MD

Jan 2019 – Apr 2022

- Worked as **core member of the development team** instituting the test center administration system for supporting pop-up test centers across the world. In 1.5 years of being live, the system **has earned \$10 million in revenue and experienced no major defects**.
- Developed voice-capture software for biometric data acquisition for using Windows Forms in C# .NET
- **Built workflow managing system** capable of accepting customizable json workflows using .NET core, which maintained connection with a messaging service using SignalR
- Created command-line debugger tool to test features in isolation and simplify development
- Designed UI wireframe and mockups for close of business dashboard webpage using Gimp
- Improved on test center front-end ui using React with Antd, Webpack and Typescript
- Reinforced codebase with front end unit tests in jest, and back end unit tests with xunit
- Wrote integration/load testing software using Selenium

### EF EDUCATION FIRST

*English Teacher*

Guangzhou, China

Sep 2017 – Oct 2018

- Led 17 bi-weekly, immersive English education classes with native Chinese speakers ages 3-17
- Wrote lesson plans and developed supplementary teaching material for use in the classroom
- **Independently developed and launched game** for Android written in Java for native Android Studio, using an event messaging system to separate engine logic from ui elements, **to help students practice English**

### HISTOWIZ, INC

*California Sales & Marketing, Business Development*

San Jose, CA

Sep 2016 – Jan 2017

- Coordinated business-to-business (B2B) direct sales of histology services to cancer researchers in California
- Directly connected Histowiz with **two research labs and one pharmaceutical company** for regular use of histology services

### PHILIPS HEALTHCARE

*CT Physics Intern*

Cleveland, OH

Jan 2014 – Dec 2014

- Performed verification and validation (V&V) on novel CT scanners for physics and image quality requirements to meet FDA compliance requirements
- Investigated defects relating to CT calibration physics and recommended changes to code to resolve scanning errors
- Used Matlab to simulate automated calibration routines run on various CT scanners, and suggested improvements to prevent edge-case errors that would have potential to cause serious harm to patients

### CWRU DEPARTMENT OF BIOMEDICAL ENGINEERING

*Research Assistant*

Cleveland, OH

Apr 2012 – Jan 2014

- Used Optical Coherence Tomography (OCT) to aid in cardiovascular research

## SKILLS

C#, Python, Kotlin, Java, Javascript, Typescript, Matlab, Simulink, Labview, SQL, HTML, CSS, Git, React, Webpack, Antd, Material UI, NodeJS, d3js, ASP.NET, SignalR, Selenium, ffmpeg, Unity, OpenGL, WebGL, Shadertoy, Jest, Junit, Xunit, Android SDK, Jenkins, Azure DevOps, API, REST, DDD, MVC, CI/CD, Dependency Injection, Events, Workflows, Statistics, Biomedical Imaging, Electrical Engineering

## **EDUCATION**

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**CASE WESTERN RESERVE UNIVERSITY**  
**Bachelor of Science in Biomedical Engineering**  
Minor in Physics / Minor in Electrical Engineering

Cleveland, OH  
May 2015

## **ADDITIONAL**

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Alumnus of Alpha Phi Omega  
Alumnus of Delta Upsilon fraternity  
Ranked #41 out of 130 submissions in overall game quality for Metroidvania Month 19 gamejam, 2023  
Won \$1k in funding at GiveBackHack Columbus, 2022  
Volunteer engineer at BioCurious for community DIY Fluorescent Microscope, 2016  
Volunteer biomedical equipment technician at Medwish, 2015  
First place business model for CWRU 2013 Blackstone Launchpad's Startup Weekend  
Volunteer engineer for Engineers Without Borders, 2011-2012  
Volunteer research assistant at Cleveland Clinic immunotherapy lab, 2011  
Chinese – Mandarin – HSK2  
Completed Andrew Ng's Machine Learning course on Coursera.  
Android solo developer with published app on Android app store, "Wordfall"  
Eagle Scout

**References available upon request**