Jordan R. Horwich

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Professional Experience

Software Engineer, Google — January 2017 – Present

- Currently working on Google Knowledge Graph, a part of Google Search.
- Developed horizontal tooling and infrastructure widely used throughout Search teams for ingestion and maintenance of data in the Knowledge Graph.
- Designed a UI and algorithm for performing arbitrary topological transformations on unsanitized structured data for the purpose of schema mapping.

Software Engineer & First Employee, Nebulous Inc. — December 2015 – December 2016

- Developed, marketed, and pitched Sia, a blockchain-based decentralized storage network written in Go.
- Improved Sia's initial blockchain download by a factor of 25,000.
- Secured the gateway that maintains Sia's decentralized peer-to-peer network to prevent against eclipse attacks.
- Finalized Sia's REST-like API in preparation for launching out of beta.

Software Engineer Intern, LinkedIn — Summer 2015

- Implemented company and school mini-profiles UI for LinkedIn's homepage using the Play Framework in Scala and Dust.js.
- Implemented permalink UI for feed updates on the homepage.

Software Engineer Intern, Intentional Software — Spring 2015

- Designed and developed a natural user interface using the Microsoft Kinect to implement a gesture and virtual touch screen interface.
- Wrote a hand pose classifier in C++ using feature matching in OpenCV.
- Developed an N-dimensional implementation in C++ of UW's $1 Recognizer for atomic gesture recognition with the Kinect.
- Architected a data transformation pipeline for processing input from motion sensing devices such as the Kinect, Leap Motion, and Myo.

Software Engineer Intern, Bloomberg L.P. — Summer 2014

- Designed and developed a Bloomberg Terminal application using C++ and service-oriented architecture on the back end and javascript on the front end. This tool was used to quickly fix a fatal error in the way market data from exchanges were stored. Similar errors previously took many hours to fix without my tool.

Software Engineer & Physics Consultant, Mimir Physics — Summer 2012 – 2013

- Co-author of a patent (pending application) for a hardware and software solution to account for variations in the spectra of multiple light sources in imaging applications.
- Developed an image processor in C++ for high color bit depth images that analyzed color data to create color images with an absolute color error of $\Delta E^* < 1$.
- Increased the processing speed by a factor of nearly 100.

Skills

Languages:	Go, C++, C	$>$ 5 years experience
	Angular, Typescript, Python	4 years experience
	SQL, Swift, Scala	$<$ 3 years experience
Software:	Mercurial, Git, MacOS, Linux	

Other Projects

Offsite APFS Backup – GitHub.com/VoidingWarranties/Offsite-APFS-Backup
A non-destructive incremental backup utility for cloning APFS snapshots.

MyoIntelligesture – GitHub.com/VoidingWarranties/Myo-Intelligesture
A library for processing raw data from the Thalmic Myo using a non-linear data pipeline.

MyoHome – GitHub.com/VoidingWarranties/Myo-Home
A natural user interface for home automation using the Thalmic Myo. Allows you to control home appliances by pointing at them and gesturing. Heavily uses MyoIntelligesture.

SignSight – GitHub.com/VoidingWarranties/SignSight
A unique computer vision approach to automatic traffic sign recognition.

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Education

Rensselaer Polytechnic Institute, Troy, NY 2012 – 2015
81% of major requirements completed towards B.S., Computer Science
GPA: 3.72

Courses

- Machine Learning
- Human-Computer Interaction Usability
- Algorithms
- Computer Graphics
- Natural Language Processing
- Data Structures

Honors & Achievements

YHack - Best Use of Intel Galileo for MyoHome (Fall 2014).

HackRU - Organizer's Choice Award for TrippingWookie (Spring 2014).

Microsoft Coding Competition - Tied for first place (October 2013).

Rensselaer Leadership Award