Adam Setapen

Computer scientist and roboticist with deep expertise and experience designing, building, and programming robots meant to interact with and work alongside people.

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EXPERIENCE

Canvas Construction, San Francisco, CA — *Senior Staff Robotics Engineer*

APRIL 2021 - PRESENT

- Architect and implement production-level software for a drywall finishing construction robot
- Technical lead (Behavior, Algorithms & Manipulation Team) coordinating a team of 5 engineers
- Manage configuration and releases for production, dev and CI

Canvas Construction, San Francisco, CA — *Staff Robotics Engineer*

MARCH 2020 - APRIL 2021

- Integration of manipulation, planning, computer vision, SLAM
- Lead development and implementation of computer vision pipeline
- Converted codebase from python2 to python3, upgraded ROS distro
- Established CI / CD pipeline and testing processes
- Lead weekly testing + training sessions for junior engineers

Canvas Construction, San Francisco, CA — *Senior Robotics Engineer*

AUGUST 2019 - MARCH 2020

- Converted a 20K line file into a well-structured state machine
- Developed and maintained python libraries and CLI tools for use by production robots, CI, and developers
- Developed software for process-tuning test cell
- Established and maintained software release workflow
- HMI design (robot sounds and lights), from drivers to UX

Primed Technologies, San Francisco — *Senior Robotics Engineer*

MAY 2018 - AUGUST 2019

- Developed a robotic animatronic toy with speech recognition, NLP, and text-to-speech synthesis
- Architect and implement the entire robot software stack (python, ATMega, motor control)
- Rapid prototyping of voice-enabled robotic characters at early-stage startup (CAD, Fabrication)

HIGHLIGHTS

Shipped 5 consumer robots, 1 industrial robot

Published 7 academic papers on Robotics, AI, and education

History of delivering high-quality code, from demo to production

Built and programmed DragonBot (the first robot to use a phone as its primary computer), securing a $10M NSF grant for socially assistive robots

ACTIVE SKILLS

Languages

Python, C, C++, Swift, Lisp

English (fluent), German (conversational)

Frameworks

ROS, ROS2, numpy, Boost, iOS, Android, MATLAB, OpenGL

Design

SolidWorks, Rhino, Maya, Adobe Suite, Eagle PCB, Sound and Music

Mayfield Robotics, Redwood City, CA — *Senior Robotics Engineer*

OCTOBER 2016 - MAY 2018

- Developed core autonomous behaviors for Kuri, a home photography social robot
- Lead the architecture and implementation of realtime CV pipeline
- Lead the development of "hey Kuri" wake word and signal-location detection, coordinating with external contractors

AltSchool, San Francisco, CA — *Lead Hardware Engineer*

OCTOBER 2015 - JULY 2016

- Led the hardware team, prototyping and maintaining classroom devices
- Deployed cameras, microphones, smart tables, wearables

3D Robotics, Berkeley, CA — *Roboticist*

SEPTEMBER 2014 - OCTOBER 2015

- Scene awareness lead, developed 2D visual tracking algorithms
- Implemented an accelerated iOS vision pipeline and OTA firmware updates
- Embedded systems integration, development of test software for use in manufacturing and production

Romotive, San Francisco, CA — *Roboticist*

OCTOBER 2012 - MARCH 2014

- Technical lead on machine learning, sensor fusion, HRI
- Designed and implemented a realtime computer vision framework for iOS with OpenCV and GPU filters, facial detection + recognition, visual attention

EDUCATION

Massachusetts Institute of Technology, Boston MA — *Masters of Science, Robotics*

- Personal Robots Group, MIT Media Lab
- Graduate Advisor: Cynthia Breazeal
- Thesis Title: Creating Robotic Characters for Long-Term Interaction

University of Texas, Austin TX— *Masters of Science, Computer Science*

- Concentration in AI, Minor in Cognitive Science
- Graduate Advisor: Peter Stone
- Thesis Title: Exploiting Human Motor Skills for Training Bipedal Robots

University of Texas, Austin TX— *Bachelors of Science, Computer Science*

- Turing Scholars Honors Program

ACTIVE SKILLS (CONT'D)

Electronics

Integration, Sensor prototyping, Power management, Motor controllers

Fabrication

CNCs, Mills, Lathes, Laser Cutters, Waterjets, 3D Printers (SLA, SLS, FDM, MJM), Mold Making, Sewing

TEACHING

Introductory Robotics Course, K-2 @ AltSchool

Line-following robots Course, 2 - 5 @ AltSchool

Fab Lab Essentials @ Haystack Mountain School of Arts

How to Make (almost) Anything TA @ MIT