ANDREW DAHDOUH

Robotics Engineer

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🌐 realitybytes.blog

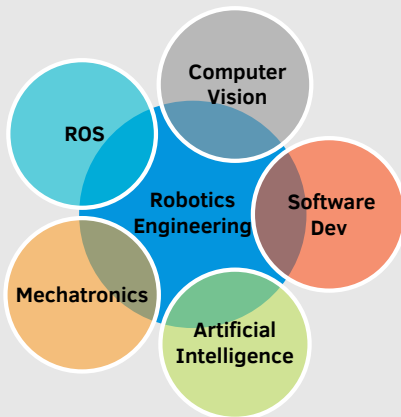✉ andrew.dahdouh@gmail.com

in /in/andrewdahdouh

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Skills

Overview

Programming

$0\ LOC$ ——————→ $5000\ LOC$

Python • Linux

Embedded Systems • Mechatronics

C • C++ • ROS

Projects

Autonomous Rover - A differential wheeled mobile robot capable of path planning, state estimation, and navigation through static environments.

CS6475 - An Unsorted Structure from Motion Pipeline in C++.

CS7637 - An AI agent capable of visually solving 3x3 Raven's Progressive Matrices.

Team Cerebro - A anthropamorphic Robot Arm with a Brain-Machine Interface for control.

Experience

Nov 2017 - Present — **Robotics System Engineer** — Verb Surgical
- Advanced robotic system development with experience in hardware and software development and integration. Tasks include use of Python, C/C++, Linux, QNX, Bazel, and System Bring-Up.
- Computer Vision experience with processing endoscopic video.

Dec 2015 - Nov 2017 — **Robotics Engineer** — Houston Mechatronics, Inc
- Advanced robotics system research, development, and implementation. Experience in a highly dynamic research and development environment on advanced intelligent, dexterous and autonomous robotic systems. Job tasks and duties include: Computer Vision and Machine Learning, Supervised autonomy, Motion planning, Teleperception, Robotic Simulation, and Dexterous Control.
- Usage of protocols such as EtherCAT and ØMQ to interface high level control and lower-level hardware/software abstractions.
- Development in Python and C++ with utilization of the ROS framework in a highly dynamic Agile/Scrum development team.

Oct 2014 - Aug 2015 — **System Developer** — Optimation Technology, Inc
- Job tasks include identifying system requirements, developing technical design documentation, software development, and installation of software and hardware based solutions. Projects required architecture of small to medium sized automation solutions for the fields of Petrochemical Engineering, Medical Devices (ISO 13485 experience), Renewable Energy, and Aerospace Engineering.

June 2014 - Oct 2014 — **Embedded Software Engineer (Contract)** — Advanced Pharmacy
- Development, testing, and maintenance of Kernel and RTOS code for mechatronic pharmaceutical dispensers.
- Development and implementation of software in Embedded C.

Aug 2013 - June 2014 — **Embedded Software Engineer (Contract)** — Baker Hughes
- Embedded software engineering experience for hydraulic fracturing and coil tubing industrial equipment.

Jan 2013 - Aug 2013 — **Design Engineer** — Oceaneering DTS
- Engineering position in a fast paced, high risk environment providing solutions and tooling for ROV systems in deepwater situations in subsea engineering.

Education

2018 - 2020 **MSc., Computer Science** Perception, Robotics and AI — Georgia Institue of Technology, Online

2016 - 2017 **Robotics Specialization** Coursera — University of Pennsylvania

2008 - 2012 **BSc., Mechanical, Computer Engineering Technology** — University of Houston

Publications

A. Dahdouh, M. A. Moges, L. Pollonini, "An integrated ear-mounted sensor for pulse oximetry and EKG measurments," in 2012 IEEE Health Innovations Conference, IEEE, 2012.