

Amir Pourshafiee

813 East Cliff Dr
Santa Cruz, CA 95060
(408)882-7336
www.cruzcontrolled.com

OBJECTIVE A position in the field of automation with emphasis in computer vision and sensor fusion.

EDUCATION *Doctor of Philosophy, Computer Engineering*
UC Santa Cruz. Santa Cruz, CA. expected June 2019
Concentration: Robotics and Computer Vision

Bachelor of Science, Electrical Engineering
UC Santa Cruz. Santa Cruz, CA. June 2013
Concentration: Control and Communication

Bachelor of Science, Network and Digital Technology
UC Santa Cruz. Santa Cruz, CA. June 2013

Associate of Arts, Liberal Arts with emphasis in STEM
De Anza College, Cupertino, CA. December 2010
Concentration: Robotics and Computer Vision

RELATED SKILLS

Languages: C, C++, Python, MATLAB, JAVA, Arduino, Objective C, Assembly Language.

Software: LabVIEW, Latex, OpenCV, MultiSim, ISE Logic Design, OpenGL, Cadence, Solidworks, AutoCAD, 3d Studio max.

Operating Systems: Windows, Macintosh, Linux, Android, iOS.

Hardware: PCB design, Analog signal conditioning, Testing and debugging using oscilloscope, Digital multimeter, and Logic analyzer, Analog filter design, Noise suppression.

Embedded Systems: PIC and ARM micro-controllers, I²C, UART, Interfacing and processing digital and analog sensors.

Networks: TCP(UDP, FTP), Serial communication, UART, CAN bus.

EXPERIENCE **UC Santa Cruz, Graduate Student Researcher** September 2014 - Present
Keywords: Image processing, Sensors and systems

- Designed a cancer cell growth monitoring software (detection, identification, and measurement).
- Developed a semi-autonomous cell injection and aspiration program for a micro manipulator.

UC Santa Cruz, Junior Scientist September 2013 - August 2014
Keywords: Control and system, Sensors, Networks, Embedded software design

- Developed an iOS application to communicate with a biosensor to process and project the sensor data.
- Created an interface for a micromanipulator to network with PC workstations using Serial ports and TCP.
- Built collaborative, distributive sensing rovers for magnetic mapping of large fields.

USGS, Summer Intern, Surprise Valley, CA August 2013 - September 2013
Keywords: Data analysis, Unmanned aerial vehicle

- Extrapolated raw magnetometer and GPS data to identify the magnetic field compensation box pattern.
- Assisted with assembling, transporting, testing, takeoff, and landing of an unmanned aerial vehicle.

UCSC Autonomous Rover Team (NASA Centennial Challenge), Co-leader and Sensor Engineer, Santa Cruz, CA December 2012 - June 2013
Keywords: Sensor interface, hardware design, embedded systems

- Interfaced gyroscopes, accelerometers, infrared proximity sensors, and force sensing resistors for navigation, obstacle avoidance, and sample sensing.
- Integrated sensor and actuator subsystems and suppressed noise in hardware and software.

Canrig Drilling Technology, Summer Internship, Magnolia, TX July 2012 - September 2012
Keywords: Hardware design, simulation

- Manufactured a simulation box to verify signal integrity of a Programmable Logic Controller.
- Developed a bypass system to test electro-mechanical functions of a drilling wrench.

COMMUNITY SERVICE **Academic Coach** *Andrew P. Hill High School* August 2010 - January 2011
Tutored and provided academic advising to underprivileged students under Cal-SOAP program.

EXTRA-CURRICULAR ACTIVITIES Elected *Vice President of student services*, De Anza Associated Student Body
Founder and president, Iranian Student Association in De Anza College
Appointed *Graduate Student Liaison*, Iranian Student Network in UC Santa Cruz
Member *IEEE*, UC Santa Cruz