

Amir Pourshafiee

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Education:

UC Santa Cruz, Santa Cruz, CA Sept 14 - June 15
• Master of Science in Computer Engineering

UC Santa Cruz, Santa Cruz, CA Jan 11 - June 13
• Bachelor of Science in Electrical Engineering
• Bachelor of Arts in Network and Digital Technology

De Anza College, Cupertino, CA April 07 - Dec 10
• Associate in Arts with emphasis in Math, Science, and Engineering

Related Coursework

Mechatronics	Algorithm Design	Logic Design
Computer Vision	Analog Micro-Electronics	Feedback and Control Systems
Networks	Computer Architecture	Sensors

Honors and Awards:

Technology Achievement Award June 13
• Awarded by NASA Centennial Challenge, Sample Return Rover 2013
• UC Santa Cruz "2nd place overall" among senior design projects, in the class of 2013

Dean's Honors June 13
• Ranked amongst the top %15 of UC Santa Cruz engineering students of spring 2013

Experience:

UC Santa Cruz, Santa Cruz, CA
Graduate Student Researcher (Image Processing, Sensors and Systems) Sept 14 - Present
• Designed a cancer cell growth monitoring software (detection, identification, and measurement)
• Developed a semiautonomous cell injection and aspiration program for a micro manipulator

Junior Specialist (Control and system, sensors, networks, embedded software design) Sept 13 - Aug 14
• 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 workstations using Serial ports and TCP
• Built collaborative, distributive sensing rovers for magnetic mapping of large fields

NASA_USGS (internship), Moffett Field _ Surprise Valley, CA
Ground Crew-Safety Observer (Data analysis, unmanned aerial vehicle) Aug 13 - Sept 13
• 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), Santa Cruz, CA
Co-Leader and Sensors Engineer (Sensor interface, hardware design) Dec 12 - June 13
• 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 (internship), Conroe, TX
Electrical Engineering Intern (Hardware design, simulation) July 12 - Sept 12
• 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.

Skills:

Embedded: PIC Microcontrollers, I²C, UART, Interfacing and processing Analog/ digital sensors
Programming Languages: C, Python, Java, Assembly language, MATLAB, C++ (OpenCV), Objective C, Arduino
CAD/Simulation Software: ISE Logic Design, LabVIEW, Cadence, SolidWorks, 3ds Max
Hardware: Signal conditioning, Debugging with Oscilloscopes and millimeters, PCB Design