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SAHIL B SHAH

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Apt C

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OBJECTIVE	Internship in a startup in areas of computer vision, wearable devices, internet of things or robotics		
EDUCATION	Carnegie Mellon University, Pittsburgh		December 2015
	Robotics Institute- MS in Robotic Systems Development		
	James R. Swartz Entrepreneurial Fellow		
	Birla Institute of Technology and Science, Pilani, India		December 2012
	Bachelor of Engineering (Hons.) Computer Science		First Division
	Undergraduate Thesis: Pulse rate estimation from facial videos		
SKILLS	Languages:	C, C++, Java, MATLAB, Ruby, Javascript, Python, HTML/CSS	
	Frameworks & Tools:	MATLAB, Android Apps, Unix Utilities, Rails, Heroku, OpenCV	
RELEVANT COURSEWORK	Computer Vision	Systems Engineering	Machine Learning
	Artificial Intelligence	Mobility, Manipulation & Control	Data Structures & Algorithms
EXPERIENCE	Tonbo Imaging, Bangalore, India		Jul 2013 - Jun 2014
	Member of Technical Staff (employee #15)		
	Video Stabilization (watch: vimeo.com/sahilshah/imu-video-stab-2)		
	<ul style="list-style-type: none">Implemented real time image stabilization for handheld cameras and UAVs using Inertial Measurement Units (accelerometer and gyroscope)Increased frame rate by two times over previous methodsPrototyped the entire system on TI DM6467 microprocessor and Invensense MPU		
	Tech: C++, Kalman filters, sensor fusion, Qt Libraries, Embedded Systems Programming		
	Neuroinformatics & Cognitive Robotics Lab, TU Ilmenau, Illemanu, Germany		Sep 2012 - Nov 2012
	Research Intern		
	Pulse Rate Estimation from Facial Video (deck: slideshare.net/sahilshah15/pulse-detector)		
	<ul style="list-style-type: none">Implemented a real time application to estimate the pulse rate of a person using video of his faceDeployed on a robot that assisted residents at home for the aged		
	Tech: Literature Review, C++, Independent Component Analysis, Fast Fourier Transforms, Face Detection (Viola Jones, Active Appearance Model)		
	Goldman Sachs & Co., Bangalore, India		May 2013 - Jul 2013
	Summer Analyst		
	Apache Solr		
	<ul style="list-style-type: none">Customized the 'More Like This' feature of Solr to make queries on a database of 7M+ XML records more effectiveReduced the steps required to analyze suspicious transactions by a factor of 2		
	Tech: Java, XML, Information Retrieval, tf*idf algorithm, similarity scores		
PROJECTS	Autonomous Quadcopter Docking & Charging System		Aug 2014 - May 2015
	Using the fine precision of computer vision to supplement GPS guidance and enable a UAV to land precisely on a custom manufactured docking station with charging capabilities		
	Compiler Construction		Jan 2012 - May 2012
	Implemented compiler logic in C for an experimental programming language		
OTHER INTERESTS	Reading, startups, physics, gadgets, basketball (college captain, gold medalist), running (half marathon), squash		