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Risha Mars

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Education	**Massachusetts Institute of Technology**	*June 2011*	*Cambridge, MA*

Candidate for Bachelor of Science Degree, Electrical Engineering, **GPA 4.7/5.0**
- Related coursework: Introduction to Electrical Engineering and Computer Science I&II, Probability and Statistics, Differential Equations, Circuits, Signals and Systems, Computation Structures

University of Cambridge 2009-2010 *Cambridge, UK*

3rd year exchange program
- Coursework: RF Electronics, Switch-mode Electronics, Semiconductor Engineering, Signals and Systems, Computer Systems, Photonic Technology, Systems & Control, Signal and Pattern Recognition, Data Transmission, Software Engineering and Design

Experience *06-2010 to 08-2010* *Universidad Politécnica de Madrid* *Madrid, Spain*

Unmanned Aerial Vehicle (UAV) Intern
- Set up and documented hardware and software to integrate newly purchased vehicle into research group
- Gathered test data from flights to improve flight quality and investigate vehicle capabilities
- Operated ground station during flights
- Configured autopilot parameters to enable stable flight
- Added functionality to existing remote control program allowing the vehicle to be controlled by a laptop as an alternate pilot

06-2009 to 08-2009 *Ingersoll Rand Security Technologies* *Bangalore, India*

Wireless Electronic Lock Engineer
- Added remote control capabilities to existing electronic lock using Zigbee technology
- Planned all stages of project, assisted in design and review of hardware
- Produced design documents, flow charts and block diagrams following the New Product Development Cycle
- Soldered and tested PCB, built working prototype

01-2009 *Brown Innovations* *Boston, MA*

Signal Processing Extern
- Installed bootloader software on Analog Devices Blackfin processor circuit board using JTAG
- Learned concepts and procedures in Digital Signal Processing

09-2008 to 05-2009 *Massachusetts Institute of Technology* *Cambridge, MA*

Physics Tutor
- Help students with concepts of mechanics, provide one-on-one and group homework assistance
- Hold exam review sessions for groups of up to 12 students
- Grade homework and exams

05-2008 to 08-2008 *Ben Gurion University* *Beer Sheva, Israel*

Hyperspectral Data Analyst
- Interned in a mathematical research position using MATLAB
- Constructed and tested a model for quantifying error in satellite images
- Model assists in target detection in satellite images

Extra-Curricular Activities

2009	Treasurer -- MIT Muslim Students' Association
2008-2009	Transportation Manager, Meeting Coordinator -- Hibur, The MIT-Technion Link
2007-2009	MIT Women's Lightweight Crew (Varsity)
2000-2007	Piano and violin classes and recitals

Academic Awards

2007	National Scholarship Winner (Trinidad and Tobago)
2007	Trinidad and Tobago Mathematics Olympiad (Level 2) - 7th place nationally

International Experience

2008	Audited a course in Hyperspectral Data Analysis	*Ben Gurion University, Israel*
2007 (June)	Global Young Leaders Conference	*Washington DC & New York City*
2006 (Dec)	16th Commonwealth Conference of Education Ministers (Youth Forum)	*South Africa*

Skills

Computer:	MATLAB, knowledge of C++, Java, Python languages
Electronics:	Circuit building in lab using op-amps, LDRs, motors, PCB soldering
Languages:	Fluent in Spanish; currently studying intermediate Arabic; basic German, French and Hebrew