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| **RICHA** E-mail: richa.379543@2freemail.com | Current visa status: U.A.E Residence visa |
| **SUMMARY** | An electrical engineer with specialization in nonmaterial’s, MEMS, and thermal characterization. |
| **EDUCATION** |  |
| 05/201705/201305/201006/2007 | **University of California, Irvine – School of Engineering** (Irvine, CA)M.S. – Materials and Manufacturing Technology (GPA – 3.86) **Cornell University – School of Engineering** (Ithaca, NY) M.Eng. – Electrical and Computer Engineering**Rollins College – Crummer Graduate School of Business** (Winter Park, FL) M.B.A. (Honors) – Finance & Management (100% Tuition Scholarship)**Birla Institute of Technology & Sciences – Pilani** (Dubai, U.A.E)B.S. (Honors) - Electronics & Instrumentation Engineering  |
| **EXPERIENCE** |  |
| 09/09 – 05/1108/07 – 06/0808/06 – 01/0706/05 – 08/05 | **Rollins College – Strategic Marketing**, Winter Park, FL*Web Strategy Analyst* – Part of a three-member web team responsible for the successful relocation and subsequent re-launch, in a new format, of over a hundred websites (3,500 web pages) pertaining to the various departments of the college.**General Enterprises Co. (GECO) Mechanical & Electrical Ltd.**, Sharjah, U.A.E*Junior Planning Engineer* – Responsible for resource allocation, using Primavera software, for various electrical conduiting projects undertaken by the company.**Maritime Industrial Services Co. Ltd. (MIS),** Sharjah, U.A.E*Trainee Electronics & Instrumentation Engineer* – Responsible for the compilation of engineering drawings and documents related to different projects. Presented a research-based project on Supervisory Control & Data Acquisition (SCADA) systems.**Saab Marine Middle-East (FZC)**, Sharjah, U.A.E*Trainee Engineer (Internship)* – Compiled operation & maintenance manuals for the different projects undertaken by the company. Presented a research-based project on Programmable Logic Controllers (PLCs). |
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| **ENGINEERING PROJECTS** | **Analog Multiplication through a NEMS Neuron** – I simulated and tested an innovative nanoscale structure that would act as a weighted analog multiplication device. The eventual goal was to be able to connect these multipliers in a perceptron structure, which would function as an artificial brain. I simulated the nanoscale structure with COMSOL Multiphysics (Engineering Simulation Software) in both 2D as well as 3D. In addition, I was involved in the testing of samples fabricated in CNF (Cornell NanoScale Science and Technology Facility). Upon completion, I presented a written report and a poster to discuss my results.**An RF MEMS Shunt Capacitive Switch for Dielectric Charging Minimization** – A micro-switch for coaxial power transmission lines designed using L-Edit. I simulated the proposed switch with COMSOL to prove that it would minimize charging and enhance performance.**Chip-Scale Combinatorial Atomic Navigator** – This project allowed me to gain an in-depth knowledge of MEMS fabrication, and included extensive lab experimentation with complicated equipment such as diode lasers, gas microcells, lock-in amplifiers, and magnetic shields; not to mention oscilloscopes, RF heaters, power supplies, and optical lenses.**3 Omega Measurement of Thermal Conductivity of Nanomaterials** – I assisted in the setup of a 3 omega measurement system to measure the thermal conductivity of innovative nanomaterials. The setup included a vacuum pump, a 4-Kelvin cryogenic chamber, and numerous other components.**On-Chip Peltier Cooling of Nanoelectronic Hot Spots** – I simulated an on-chip Peltier cooler for IC chips using COMSOL. **Additional Projects** – IC Layout Design Projects (Cadence); Time Stretch Analog-to-Digital Converter; Sapphire Crystal Laser; Asynchronous VLSI Sudoku Solver.  |
| **TECHNICAL SKILLS** | **Engineering Tools**: COMSOL, Cadence, L-Edit, AUTOCAD, PSpice, MATLAB**Computer Languages**: C++, HTML, SQL, Visual FoxPro |
| **RELATED TEST SCORES** | **GMAT**: 750/800 **GRE**: 790 (Quantitative Reasoning)**Common Admission Test (CAT)**: 94.5th percentile**IELTS**: 8.5/9  |
| **SPECIAL ACHIEVE-MENTS** | MENSA ScholarBeta Gamma Sigma International Honor Society Member |