SIDDHARTH (SID) GUPTA

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M.S. in Electrical Engineering and extensive experience in **hardware** and **software** design with **FPGAs** and **embedded systems**. Strong track record of involvement in end-to-end product cycle. Management experience of interdisciplinary teams.

EDUCATION

Rice University, Houston, TX

M.S. in Electrical and Computer Engineering, 2009, GPA 3.90/4.00
  Thesis Title: WARPnet: A Platform for Clean-Slate Deployed Wireless Networks
B.S. in Electrical and Computer Engineering, 2007, GPA 3.84/4.00, *cum laude*

SKILLS

Hardware: Cadence Design Tools, Xilinx Design Tools, System Generator, Verilog, Bill of Materials
Software: Object-Oriented Programming, Python, C/C++, Android SDK, Java, Javascript, MySQL, HTML/PHP
Misc: Linux, MATLAB, Logic Analyzers, Digital Scopes, Prototype Soldering, CAD design, MS Office

TECHNICAL EXPERIENCE

Research Engineer at Center for Multimedia Communication, Rice University, Houston, TX, Sept 2009 - present
  Developed key hardware and software for **wireless communication** and **mobile health devices**:

  Wireless Open-Access Research Platform (WARP):
  - **Designed** (schematics and layout) **18-layer PCBs** for high-performance **FPGA** platforms
  - **Led design** and **component decisions** from concept to production
  - **Coordinated** with contract manufacturer to improve hardware assembly yield
  - **Tested**, **debugged** and **revised** PCBs and specifications based on user feedback
  - Architected and coded **software framework** to control a network of FPGAs in Python
  - **Presented** and led hands-on **technical workshops** facilitating WARP adoption at 100+ institutions

  Scalable Health Initiative (SHI):
  - **Led product design team** for new mobile health sensor platform
  - Designed **multi-layer PCBs** and **3D-printed case** for **low-power embedded sensors**
  - Compiled **firmware code** for FPGAs and **TI MSP430** processor to process and filter raw data
  - Built mobile health devices and integrated with **Android and web databases** over Bluetooth
  - Hardware successfully selected for **Microsoft Imagine Cup 2011 World Finals**

Engineering Intern at Xilinx Inc., San Jose, CA, Summer 2006
  - Revised and **implemented** a MIMO-OFDM communication system on an FPGA platform
  - **Demonstrated** platform functionality to technical and non-technical audiences

MANAGEMENT EXPERIENCE

  - **Mentored** over 15 interns and several undergraduate and graduate research team projects
  - Coordinated and **led weekly progress meetings** with students and engineers
  - Identified novel directions and **deployment strategies** of mobile devices
  - Collaborated extensively in **interdisciplinary teams** of engineers, physicians, faculty and students

HONORS AND AWARDS

  - Herschel M. Rich Invention Award
  - Texas Instruments Graduate Fellowship
  - Schlumberger Senior Design Award
  - WL Moody Jr. Scholarship in Engineering
  - Eta Kappa Nu Member
  - Fundamentals of Engineering (FE) Certification