

Gaurav Gupta

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EDUCATION

- **University of California, Irvine** Expected Graduation: Dec 2015
 - MS (Computer Science) { GPA : 3.789 }
- **Courses taken:** Algorithms, Computer Architecture, Advanced Compiler Construction, Distributed Systems, Principles of Database Management and Middleware for Distributed Systems.
- **Birla Institute of Technology-Mesra, Ranchi, India** July 2006 - May 2010
 - Bachelor of Engineering (Electronics & Communication Engineering)

TECHNICAL SKILLS

Programming	:	C/C++, Linux Kernel, Assembly Language, Shell Scripting
Domain Expertise	:	Operating Systems, Compilers, Computer Architecture, Linkers and Loaders
Programming Environment	:	Eclipse, Vim
Tools	:	GDB, Make, Git, Perforce, Prevent, Coverity, Valgrind

WORK EXPERIENCE

- **Research Intern at Samsung Research America, Mountain View, CA** [June 2015 - Sept 2015]
 - Worked in **Samsung Knox Security Team** and implemented a robust security feature for Android devices by providing fine-grained load-time randomization of binaries for **ARM64** targets.
- **Senior Software Engineer at Samsung R&D Institute-Delhi, India** [July 2012 - Aug 2014]
 - Worked in **Kernel Development Team**. Performed porting of one kernel version to another by adding Samsung product specific features for yearly release of Kernel for Samsung smart TVs.
 - Also, implemented and enhanced **Coredump functionality** for multi-threaded applications of Samsung product binaries for **ARM & MIPS** targets.
- **Software Engineer at Aricent Holdings, Gurgaon, India** [Sept 2010 - July 2012]
 - Worked in **Middleware Team** for **Nokia Siemens Network**. Implemented a middleware layer to provide performance related data of underlying hardware for telecom domains, such as BTS, BSC and RNC.
 - Implemented **IMS message chat** based server to facilitate communication among group of people. Additionally, added the support to save chat messages when the receiver was offline and delivered the pending messages later.

ACADEMIC PROJECTS

University of California, Irvine

- **Compiler Construction with optimizations** [Jan 2015 - March 2015]
 - Developed a compiler for DLX processor simulator with the support for register allocation using liveness analysis and various optimizations like, common subexpression elimination and copy propagation.
- **Relational DBMS Implementation in C++** [March 2015 - June 2015]
 - Implemented a fully functional relational database for Unix file system. It included Page File Manager, Record Base File Manager, Relational Manager, Index Manager and Query Execution Layer.

BIT-Mesra, Ranchi

- **Automatic Irrigation System** [July 2007]
 - Implemented a micro-controller based embedded system project which automates the irrigation system by checking the moisture content in soil and correspondingly sends interrupts to motor.

ACHIEVEMENTS

- Submitted a project proposal in Innovative Ideas contest held at Samsung R&D Institute, Delhi, India.
- Best project award for implementing the IMS message application server.
- Best hardware project award for developing Automatic Irrigation System.