SRIJAN R. SHETTY
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EDUCATION			
	CURRENT	B. Tech, COMPUTER SCIENCE AND ENGINEERING, **Indian Institute of Technology**, Kanpur	**9.5/10.0**
	JULY 2011	12th Board, CBSE Board, **The Emerald Heights International School**, Indore	**91.4%**
	JULY 2011	10th Board, ICSE Board, **The Laurels School International**, Indore	**95.4%**

SKILL SET		
	LANGUAGES	**JavaScript** (Expert), **Python** (Proficient), **C++** (Proficient), **C** (Proficient)
	WEB DEV	**HTML5**, **CSS**, **SQL and NoSQL**, **AngularJS**, **Nodejs**
	TOOLS	**Git** (Expert), **Shell Scripting** (Proficient), **Vim** (Expert), **LaTeX** (Proficient)

WORK EXPERIENCE

Multi Factor Authentication in OpenVPN   2014 - 2015
MOZILLA WINTER OF SECURITY, Guillaume Destuynder and Professor Dheeraj Sanghi   [Wiki]

- One of the **eleven** teams to be selected as a part of Mozilla's Winter of Security Initiative 2014.
- The objective of the project is to implement true **arbitrary multi-factor authentication** support in **OpenVPN**; and to implement **session-support** for the additional factors. [https://wiki.mozilla.org/Security/Mentorships/MWoS/2014/OpenVPN_MFA]

Research Intern   MAY-JULY 2014
MICROSOFT RESEARCH INDIA, Bangalore

- Analysed the implementations of different distributed systems and databases architectures like **Google MapReduce**, **Google FileSystem**, **Google MillWheel** **Yahoo! PNUTS**, **Amazon DynamoDB**, **Apache Kafka**, **Apache Spark**, **Apache Hadoop**, **Apache Storm**, **Microsoft Dryad**, and **Microsoft DryadLINQ** to understand the design decisions involved.
- Used **TPL Dataflow** and **Lightweight Tasks** to implement concurrent pipeline processing of messages in CScale to preserve processing order of partially ordered messages. Performed **performance testing**, **failure testing** of the existing infrastructure.

Software Development Intern   MAY-JULY 2013
AURUS NETWORKS', Bangalore

- Ported the legacy flash based web player in **CourseHub** — Aurus Networks' MOOC offering — to a technology agnostic **HTML5/JavaScript** web player leading to a uniform cross-platform viewing experience.
- Developed a **XMPP** based **real-time chat service** using Jabber framework, for conversations during live lectures.

COURSE PROJECTS

JavaScript to MIPS Compiler   WINTER 2013-2014
COMPILERS, Professor Subhajit Roy   [GitHub]

- Implemented an end-to-end ECMAScript 5.1 compiler for the MIPS architecture with support for first class functions, anonymous functions, static types, type annotations, recursion and nested functions. [https://github.com/srijanshetty/javascript-compiler]

Hindi author attribution   WINTER 2013-2014
ARTIFICIAL INTELLIGENCE, Professor Amitabha Mukherjee   [GitHub]

- Presented a poster on Opinion Word Expansion and Target Extraction through Double Propogation, Guang Qin, Bing Liu, Jiajun Bu, Chun Chen that was nominated as the best poster by all students.
- Generated a Hindi literature corpus consisting of works by Tagore, Vibhuti Narayan, Premchand, Sarat Chattopadhyay and Dhamarvir Bharati.
- Clustered a sample set of multiple Hindi authors using K-means unsupervised clustering to achieve F-scores in the range of 90-97% for each author.
- Classified each author using Support Vector Machine using Radial Basis Kernel function and achieved an F-score of 90–95% for each author.
- Performed Multiple Discriminant Analysis on the data for a quantitative comparison with word collocations; there was no appreciable difference in the results with the F-scores increasing only marginally. [https://github.com/srijanshetty/author-attribution]

NachOS   MONSOON 2013-2014
OPERATING SYSTEMS, Professor Mainak Chaudhari   [GitHub]

- Extended the standard system call library of NachOS and implemented system calls pertaining to Fork, Exec, Join, Yield, Sleep and Exit. [https://github.com/srijanshetty/nachos-syscalls]
- Implemented process scheduling algorithms: UNIX Scheduling, First in First Out, Round Robin, Shortest Job First and Non-pre-emptive job scheduling to assess their relative performances. [https://github.com/srijanshetty/nachos-scheduling]
- Programmed page replacement algorithms: Random Page Allocation, First in First Out, Least Recently Used(LRU) and LRU Clock to evaluate relative performances under difference scenarios. [https://github.com/srijanshetty/nachos-final]

P2P File Sharing and Streaming and IP Spoofing   MONSOON 2013-2014
COMPUTER NETWORKS, Professor Dheeraj Sanghi   [GitHub]

- Conceived and implemented a peer-to-peer protocol for file and media transfer in Node.js to share data over any LAN. [https://github.com/srijanshetty/nodesock]
- Generated raw IP packets with spoofed IP addresses to exploit test machines with ARP Poisoning, Smurfing and SYN Flooding.

8-bit General Purpose Computer on a FPGA   WINTER 2012-2013
COMPUTER ORGANIZATION, Professor Subhajit Roy   [GitHub]

- Designed and programmed a simple **Instruction set Architecture (ISA)** for a 8-bit General Purpose Computer with a **load-store** architecture on **Xilinx Spartan 3 FPGA** using System Verilog. Demonstrated recursion, looping and conditionals on the Computer by using a simple assembly language.

Conference Dates Web Crawler   WINTER 2012-2013
COMPUTING LABORATORY   [GitHub]

- Developed a **python based web crawler** to crawl paper submission deadlines for a given paper using BeautifulSoup and urllib. [https://github.com/srijanshetty/crawler]

Independent Projects

GNU/Linux Exploration, Programming Club, IIT Kanpur [http://bit.ly/pclubLinux]

Explored and documented the various facets of **GNU/Linux** like the file system, process management, memory management, shell interface etc to serve as a reference for the Student Community.

OARS [https://navya.github.io/oars]

Scraped the institute **academic records** to create a database of all courses offered by the institute to create an AngularJS based **course search** over the existing legacy course search.

Hackathons	**ShuffleRun**:	Pitched ShuffleRun, a **music player** which selects tracks on the basis of the user's running speed; recieved honourable mention at **Yahoo! HackU 2013**. https://github.com/srijanshetty/ShuffleRun]
	GYPH:	Eased the process of creating minimalistic websites for not-so-tech-savvy students by creating a WYSIWG website **editor.** http://gyph2.herokuapp.com/template1
Web Development	**Antaragni '14**:	The annual cultural festival of IIT Kanpur. http://ali.srijanshetty.in
	Junoon '14:	Eastern Band Competition, Antaragni '14. http://junoon.srijanshetty.in
	Udghosh '13:	The annual sports-fest of IIT Kanpur. http://udghosh.srijanshetty.in
Projects on Github	**Bash Scripts**:	handy configurations and shortcuts for ZSH https://github.com/srijanshetty/custom
	Dotfiles:	an opinionated work flow on Linux Systems. https://github.com/srijanshetty/dotfiles
	Notes:	notes on computing and social sciences. https://github.com/srijanshetty/notes
	DS:	implementation of certain algorithms and data structures https://github.com/srijanshetty/DS

Scholastic Achievements, Scholarships and Conferences

2011-2014	Received an **A* grade**, for exceptional performance in **Systems and Network Security**; **Computer Networks**; **Computer Organization**; **Logic for Computer Science**; **Fundamentals of Computing**; **Introduction to Philosophy**
2012-2013	**Academic Excellence Award**, IIT Kanpur.
2011-2012	**Academic Excellence Award**, IIT Kanpur.
May 2011	Secured All India rank **1937** in Joint Entrance Exam (JEE)
Jan 2011	Kishore Vaigyanik Protsahan Yojana (**KVPY**) Fellowship
Jan 2010	Qualified **Regional Mathematics Olympiad** (RMO)
Dec 2009	**CSIR Programme on Youth for Leadership in Science** held at Advanced Materials Research Institute, Bhopal

Leadership and Artistic Skills

Active blogger at srijanshetty.quora.com [Blog]

Hacker, Navya, FOSS Group IIT Kanpur [https://github.com/navya]

- Promoted the **FOSS initiative** in campus by organizing **student lectures** and meet-ups.
- Built student-centric applications like **Course Search and Student Search**, to circumvent their legacy institute counterparts.

Head, Major Events and Competitions, Antaragni '14 2014

- Orchestrated Roadtrip — the National Campaign of Antaragni '14, under which national prelims for Nukkad, Dance, Quiz and Synchronicity were held in Pune, Mumbai, Chennai, Bangalore, Chandigarh, Bhopal, Lucknow, Kolkata, and Kanpur.
- Negotiated with leading academies of Dance, Musicals, and Fine Arts to provide mentorships, and other non-monetary incentives to the outstanding cultural performers in Antaragni under the banner of **Dream On** campaign.
- Coordinated the conduction of **fifty competitions and nine major events** with a team comprising of over **thousand volunteers**. Initiated and organized Mr. & Ms. Fresher's competition and introduced Chreo Night in Antaragni's arsenal of competitions.
- Organized a **blood donation camp** for the residents of IIT Kanpur to promote awarness about road accidents. Mobilized information about **road safety** through infographics and questionnaires via Antaragni's nation wide social campaign **Zara Sambhal Ke**.

Hospitality Coordinator, Antaragni '13 2013 – 2014

- Managed a team of **40 secretaries and 80 volunteers**, over a span of 8 months and ensured a flawless conduction of the festival.
- Chalked out the logistics of **hospitality and accommodation** of **1500 participants** with four other coordinators. Handled security arrangements during the four days of the Festival from 24th to 27th October.

Member, Gymkhana Review Committee	2013 – 2014
Editor-in-chief, Vox Populi, the campus newsletter.	2013 – 2014
Senator, Students' Senate, IITK Y11 batch.	2012 – 2013

Volunteer Work

Member, Institute Anti Ragging Committee 2014 – 2015

- Appointed as a member of the Institute Anti Ragging Committee, **a 10 member committee** responsible for welfare of the newly admitted freshmen.
- Worked in tandem with the office of the Dean of Student Affairs, to organize sessions on **easing the transition of freshmen**. Ensured institute norms regarding humane treatment of freshmen are properly conveyed to all senior batches and worked towards the enforcement of those norms.

Tutor, English Proficiency Programme 2013 – 2014

Professor Bhaskar Das Gupta

- Worked as a **English tutor** in the pilot English Proficiency Programme to help **under-privileged students** obtain a functional knowlege of English.

Academic Mentor, Fundamentals of Computing, Professor Sumit Ganguly 2012 – 2013