Srijan R. Shetty

Senior Undergraduate, Dept of Computer Science and Engineering

✉ srijan.shetty@gmail.com
⍟ @srijanshetty
🌐 https://srijanshetty.in

Skill Set		
	Languages	**JavaScript** (Expert), **Python** (Proficient), **C++** (Proficient), **C** (Proficient), **R** (Intermediate)
	Web Dev	**HTML5**, **CSS**, **SQL and NoSQL**, **AngularJS**, **Nodejs**
	Tools	**Git** (Expert), **Shell Scripting** (Proficient), **Vim** (Expert), **LaTeX** (Proficient)

Education

Current	B. Tech, Computer Science and Engineering, **Indian Institute of Technology**, Kanpur		**9.6/10.0**
July 2011	12th Board, CBSE Board, **The Emerald Heights International School**, Indore		**91.4%**
July 2009	10th Board, ICSE Board, **The Laurels School International**, Indore		**95.4%**

Work Experience

Summer Intern
Klozee., Bangalore
May - June 2015

- Automated developer operations by creating a heroku style push to deploy model on AWS.
- Worked full stack on Express, Angular, Node and Angular to create a apparel store for the web app.

Multi Factor Authentication in OpenVPN
Mozilla Winter of Security, Guillaume Destuynder, Professor Dheeraj Sanghi
2014 - 2015   [Wiki]

- One of the **eleven** teams all over the **world** to be selected as a part of Mozilla's Winter of Security Initiative 2014.
- The objective of the project was to implement true **arbitrary multi-factor authentication** support in **OpenVPN**; and to implement **session-support** for the additional factors.
- The project presentation is archived at https://air.mozilla.org/mwos-2014-openvpn-mfa/.
- The wiki for the project is located at https://wiki.mozilla.org/Security/Mentorships/MWoS/2014/OpenVPN_MFA

Research Intern
Microsoft Research India, Bangalore
May-July 2014

- Analysed the implementations of different distributed systems and databases architectures like **Google MapReduce**, **Google FileSystem**, **Google MillWheel Yahoo! PNUTS**, **Amazon DynamoDB**, **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 ord er of partially ordered messages. Performed **performance testing**, **failure testing** of the existing infrastructure.

Software Development Intern
Aurus Networks', Bangalore
May-July 2013

- 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.

Awards and Achievements

May 2015	Achieved a rank of **53** in Kaggle's Bike Sharing Demand Machine Learning Competition.
2011-2015	Students' **Gymkhana Leadership Award**, IIT Kanpur.
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

Monsoon semester: July to November
Winter Semester: January to April

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.

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.

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.
- 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.
- 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.

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.

VS-3, Electronic Voting   WINTER 2014-2015
Election Council, IIT Kanpur   [GitHub]

- Designed and created a new electronic voting system in consultation with the **Students' Senate** to facilitate smooth electonic voting in the campus.
- The voting system was subsequently used in Students' Gymkhana General Elections, Hall 8 HEC Elections, Hall 2 HEC Elections and Hall 4 HEC Elections.

VANI - Voicing Archiving and Networking Information   SUMMER 2012-2013
Professor Manidra Agarwal, Professor T. V. Prabhakar

- Initiated the creation of VANI - an extensible community platform with applications for forums, wikis, search, lost and found and calendars.

LEADERSHIP SKILLS

Chief Election Officer, Election Council, IIT Kanpur   2014 - 2015

- Conducted General Elections, Student's Gymkhana 2014 and Girls Representative Elections, Students' Gymkhana 2014.
- Developed a new voting software from ground up to cater to the needs of IIT Kanpur.

Head, Major Events and Competitions, Antaragni '14   2014 - 2015

- 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

Extra-Curricular Activities

Sporadic blogger at srijanshetty.in   [Blog]

Hacker, Navya, FOSS Group IIT Kanpur   [Site]
- 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.

Active contributor to numerous open source projects   [GitHub]