

SRIJAN R. SHETTY

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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	12 th Board, CBSE Board, The Emerald Heights International School , Indore	91.4%
JULY 2009	10 th Board, ICSE Board, The Laurels School International , Indore	95.4%

WORK EXPERIENCE

Summer Intern

MAY - JUNE 2015

KLOZEE., Bangalore

- 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

2014 - 2015

MOZILLA WINTER OF SECURITY, Guillaume Destuynder, Professor Dheeraj Sanghi

[\[Wiki\]](#)

- 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

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 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.

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

Data Sensitive Hashing

INDEXING AND SEARCHING TECHNIQUES IN DATABASES, Professor Arnab Bhat-tacharya

WINTER 2014-2015

[\[GitHub\]](#)

- Extended data sensitive hashing using standard Locality Sensitive Hashing extensions to compare effectiveness.
- Implemented entropy based dsh, and multiprobe dsh and analysed relative performance with respect to dsh.

JavaScript to MIPS Compiler

COMPILERS, Professor Subhajit Roy

WINTER 2013-2014

[\[GitHub\]](#)

- 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

ARTIFICIAL INTELLIGENCE, Professor Amitabha Mukherjee

WINTER 2013-2014

[\[GitHub\]](#)

- Presented a poster on Opinion Word Expansion and Target Extraction through Double Propagation, 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

OPERATING SYSTEMS, Professor Mainak Chaudhari

MONSOON 2013-2014

[\[GitHub\]](#)

- 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

COMPUTER ORGANIZATION, Professor Subhajit Roy

WINTER 2012-2013

[\[GitHub\]](#)

- 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

Election Council, IIT Kanpur

WINTER 2014-2015

[\[GitHub\]](#)

- Designed and created a new electronic voting system in consultation with the **Students' Senate** to facilitate smooth electronic 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

Professor Manidra Agarwal, Professor T. V. Prabhakar

SUMMER 2012-2013

- 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 awareness 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 knowledge 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]