

Sankaran Vaidyanathan

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<https://sankaranv.github.io>

Research Experience

- **Project Associate** Chennai, India
Robert Bosch Centre for Data Science and Artificial Intelligence, IIT Madras *Jul 2017–present*
 - Worked on modularity maximization methods for clustering on hypergraphs. Advised by Profs. Balaraman Ravindran, IITM and Srinivasan Parthasarathy, Ohio State.
 - Set up and managed a Kubernetes-based GPU cluster for the lab (currently 50 GPUs and 70+ users).
- **Research Intern** Chennai, India
RISE-IIL Lab, Department of CSE, IIT Madras *Jun–Aug 2016*
 - Worked on extending self-organizing maps for deep end-to-end clustering. Advised by Prof. Balaraman Ravindran.

Education

- **SSN College of Engineering (Anna University)** Chennai, India
B.E, Electrical and Electronics Engineering *Aug 2013–May 2017*
 - **Project:** *Control of Autonomous Quadrotor for Real-Time Object Tracking*
Built an APM2.6 based quadrotor. Implemented the Lucas-Kanade algorithm for optical flow and video stabilization using a Kalman filter, for resultant control of the quadrotor.
 - **CGPA:** 8.45/10
 - **Awards:** SSN Merit Scholarship 2014, awarded to the top 5 ranks for the first year in the EEE department. Awarded a full refund of the year's tuition fees.

Publications

Tarun Kumar*, **Sankaran Vaidyanathan***, Harini Ananthapadmanabhan, Srinivasan Parthasarathy, Balaraman Ravindran, *A New Measure of Modularity in Hypergraphs: Theoretical Insights and Implications for Effective Clustering*, **under review at The Web Conference 2019**. [arXiv]

Poster Presentations

- **RBC-DSAI Workshop on Recent Progress in Data Science and AI**
IIT Madras, 2017
 - **Poster Title:** Role Discovery in Graphs Using Global Features: Algorithms, Applications and a Novel Evaluation Strategy

Relevant Coursework

- CS7015: Deep Learning, IIT Madras
- CS6730: Probabilistic Graphical Models, IIT Madras

Skills

- **Programming Languages:** Python, C++
- **Libraries used:** TensorFlow, OpenCV, OpenGL
- **Tools and Platforms:** LaTeX, Linux, Arduino

Extra-curricular activities

- Scriptwriter for Lights Out Please, SSN's theatre group. Wrote *Minutes Before Midnight*, a 90-minute play staged at Alliance Française of Madras.
- SSN's *Teach-a-School* initiative; visited schools for underprivileged children, and taught basic math and English to students in the 6th-8th grades.
- Member of SSN's Humour Us (stand-up comedy group), English Literary Club and organizing committee for SSN Model United Nations.