

# Prithvi Sriram

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*Aspiring Polymath*

## Education

### Indian Institute of Technology Guwahati

*Guwahati, India*

B.TECH. | MAJOR IN MATHEMATICS AND COMPUTING, MINOR IN PRODUCT DESIGN

*Jul. 2015 - May 2019*

- CGPA: 8.63/10 in Major and 10/10 in Minor
- Branch Change from Electrical and Electronics Engineering to Mathematics and Computing for securing a department rank 2 during 1st year
- Relevant Coursework: Data Structures and Algorithms, Stochastic Calculus, Advanced Linear Algebra, Optimization, Matrix Computations, Databases, Statistical Analysis, and Product Planning and Strategy

### Massive Open Online Courses

COURSERA, EDX, YOUTUBE

- Certified Specializations: Probabilistic Graphical Models (Stanford), Deep Learning (Deeplearning.ai)
- Certified Courses: The Science of Well Being (Yale), Machine Learning (Stanford), Learning How to learn (McMaster University and UC San Diego)
- Other Courses: Cryptography 1 (Stanford), Convex Optimisation 1 (Stanford EE364a), Buddhism and Modern Psychology (Princeton), Combinatorial Game Theory (Georgia Institute of Technology), Learning From Data (Caltech CS 156), Applications in Engineering Mechanics (Georgia Institute of Technology), From Big Bang to Dark Energy (University of Tokyo)

## Research Internships

### Computational Biology and Bioinformatics Lab, Simon Fraser University

*Burnaby, Canada*

SUMMER RESEARCH INTERN

*May 2018 - Jul. 2018*

- Conducted Research as part of MITACS Globalink Award, under Professor Leonid Chindelevitch
- Identifying the proteins necessary for human circadian rhythm by working on a novel idea based on the dominating set problem
- Made improvements to the existing branch and bound based algorithm to compute the number of dominating sets in a graph

### Electrical Engineering and Telecommunications, University of New South Wales, Sydney

*Sydney, Australia*

SUMMER RESEARCH INTERN

*May 2017 - Jul. 2017*

- Conducted Research as a Machine Learning Intern under Professor Vijay Sivaraman and Dr. Hassan Habibi Gharakheili
- Enhanced Visibility into Software-Defined Network enabled households by profiling devices through statistical & machine learning techniques
- Classified devices as personal, shared, or visitor, identified each person's video-viewing trends and captured their content preferences

### Xenon Automotives India

*Bangalore, India*

MACHINE LEARNING INTERN

*Dec. 2015, May 2016 - Jul. 2016*

- Identified spam emails through Support Vector Machines
- Identified keywords to increase click-through rate of emails
- Designed and developed a classification algorithm in OCR pipeline to identify vehicle categories and classify as damaged or otherwise

## Patent & Publication

### Fractal bio-mimicry inspired 3D printed frameless wind resistant umbrella design

*US Patent pending*

PRITHVI SRIRAM AND SHAREKA IQBAL

- Designed process model based sketches for a frameless umbrella which can sustain strong winds

### Enhancing visibility into home networks using SDN

*IEEE ANTS*

PRITHVI SRIRAM, V. DATLA, HASSAN HABIBI GHARKHEILI AND VIJAY SIVARAMAN

*Dec. 2017*

- Proposed, developed, and deployed a Software Defined Networking (SDN) based approach to enhancing visibility into home networks by evaluating data collected through statistical and machine learning techniques

## Projects

### Bachelor's Thesis Project: Sparse Representations in Tensors for Emotion Recognition

*IIT Guwahati*

GUIDE: DR. RAFIKUL ALAM, PROFESSOR, DEPT. OF MATHEMATICS, IIT GUWAHATI

*Aug. 2018 - Ongoing*

- Exploring Tensor Decompositions and Sparse Representations to design niche Emotion Recognition algorithms

## Remote collaboration with The University of Toronto: Contextual Bandits

[IIT Guwahati, Univ. of Toronto](#)

DR. JOSEPH JAY WILLIAMS, ASSISTANT PROFESSOR, DEPT. OF COMPUTER SCIENCE, UNIVERSITY OF TORONTO

May 2018 - Oct. 2018

- Building a contextual bandit that personalizes charitable appeals with an online form of Bayesian Linear regression

## Raster Graphics editing with Voice

[IIT Guwahati](#)

DEPT. OF DESIGN, IIT GUWAHATI

Aug. 2018 - Ongoing

- Developing an end-to-end voice-based User Interface that helps specially-abled individuals use adobe photoshop to a beginner's extent

## Redesigning a windproof umbrella

[IIT Guwahati](#)

DR. SHAREKA IQBAL, ASSISTANT PROFESSOR, DEPT. OF DESIGN, IIT GUWAHATI

Jan. 2018 - May 2018

- Redesigned an umbrella to make it usable in high-wind situations by incorporating 3D printed sheets with micro pores replacing the frame

## Residence time Monte Carlo simulations to synthesize substrate movements in cells

[IIT Guwahati](#)

DR. R SWAMINATHAN, PROFESSOR, DEPT. OF BIOTECHNOLOGY, IIT GUWAHATI

Aug. 2017 - Feb. 2018

- Performing Residence time Monte Carlo simulations on Param-Ishan - the Supercomputer to IIT Guwahati - to qualitatively analyze substrate movement in a heterogenous crowding setup on an enzymatic reaction in three dimensions

## Interpreter for simple languages

[IIT Guwahati](#)

DR. KALPESH KAPOOR, PROFESSOR, DEPT. OF MATHEMATICS, IIT GUWAHATI

Feb. 2017 - May 2017

- Developed a Python-based Interpreter for a dummy language resembling Pascal

## Awards & News Mentions

### AWARDS

- 2018 **MITACS Globalink Research Award**, One among the 10 students selected for SFU-IIT Initiative
- 2017 **RC Bose Research Award**, Selected for the summer school at center for cryptology & security at ISI, Kolkata
- 2015 **All India Rank 2030**, Indian Institute of Technology Joint Entrance Examination in 1.5 million students
- 2014 **INMO**, Qualified & Secured Top Ranks across India in Indian National Mathematics Olympiad (INMO)
- 2014 **INOI**, Qualified & Secured Top Ranks across India in Indian National Olympiad in Informatics (INOI)
- 2013 **International Rank 1**, International Assessment for Indian Schools (IAIS) Mathematics, Asia-Pacific
- 2013 **All India Rank 312, KVPY**, Selected for a Direct admission into Indian Institute of Science, Bangalore
- 2012 **NTSE Scholar**, Qualified for National Talent Search Examination (NTSE) Scholarship in India

### NEWS MENTIONS

- SFU News**, SFU-Mitacs partnership welcomes first cohort of India interns [July 9, 2018](#)
- The Hindu Newspaper**, Good show by city schools- ICSE toppers [May 18, 2013](#)
- JEE Mains and Advanced**, Featured in hoardings across the city of Bangalore for performance in IIT JEE [2015](#)
- Vaartha Newspaper & City News by Siti Cable TV Channel**, Chinnari Prathibha - Featured on the news for identifying over 150 countries by their flags at the tender age of 2 [April 12, 2000](#)

## Leadership & Volunteer Services

### The Ordinary Miracle Initiative

[USA, Canada, India & Australia](#)

FOUNDER

- Spread empathy through literary expression of random acts of kindness

### AIKYA - United to Serve - ISKCON

VOLUNTEER

[Jan. 2018 - Apr. 2018, Aug. 2018](#)

- We have had medical camps, cleanliness drives and visited schools in the rural areas of Amingaon, Dadara, and Sansari (Assam), where we emphasize the importance of education and provide low-income school going children with free mid-day meals

### Saathi - Student Counseling Club of IIT Guwahati

STUDENT MENTOR

[Jul. 2017 - Ongoing](#)

- Interact and encourage youngsters to explore different career prospects and dissuade them from addiction. Be the first point of contact between a depressed student and the university counselor

### Childrens' Movement for Civic Awareness

[Bangalore](#)

PRESIDENT, BALDWIN BOYS' HIGH

[Jul. 2011 - Mar. 2013](#)

- Organized public awareness events, published articles and posters to emphasize the importance of safety while driving

## Extracurriculars

Organised *Techonothlon* in Bangalore (India's Largest Student organized aptitude test), TEDx IIT Guwahati 2016. Stargazer. Gets tired by playing basketball & chess. An Avid travel enthusiast & Photographer. Public Speaker. Loves Seeking new perspectives through random interactions with strangers.