

Soham Girish Tamba

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Personal Website: sohamtamba.github.io

Education

1. **B.Tech, Computer Sc. & Eng.** at *National Institute of Technology Goa*.
8/2014 - 9/2018
 - **GPA:** 9.21/10.
 - Graduated in *First Class with Distinction*.
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Research/Development Activity

1. **Google Summer of Code** at *Julia Programming Language*.
5/2018 - 8/2018
 - Student Software Developer for LightGraphs library.
 - Implemented optimized parallel graph algorithms in Julia.
 - Optimized pre-existing implementations in LightGraphs.
 - Contributed 2,500 lines of code into LightGraphs codebase.
 - **Supervisors:** Seth Bromberger & Divanyansh Srivastava.
 - **Blog:** sohamtamba.github.io/GSoC/
2. **Undergraduate Thesis** at *National Institute of Technology Goa*.
8/2017 - 5/2018
 - **Topic:** Proxy Re-encryption (PRE) schemes.
 - Designed PRE for efficient access control in hierarchical group communication.
 - Formulated and designed Threshold Progressive PRE.
 - **Supervisor:** Dr. Purushothama B. R.
3. **Research Internship** at *Indian Institute of Technology Bombay*.
5/2017 - 7/2017
 - **Topic:** Approximation Algorithms for variants of Clustering Problem.
 - Studied topics in Linear Optimisation, Approximation Algorithms, etc.
 - Collaborated with PhD students to design and analyse possible solutions.
 - **Supervisor:** Prof. Sundar Vishwanathan.
4. **Research Project** at *National Institute of Technology Goa*.
5/2016 - 8/2016
 - **Topic:** Efficient FPGA implementation of Deep-Q Learning.
 - Programmed components in VHDL.
 - **Supervisor:** Dr. B. Sharat Chandra Varma.

Teaching Assistantships (NIT Goa)

1. **CS351: Design and Analysis of Algorithms**, Spring 2018
1/2018 - 5/2018
 2. **CS303: Theory of Computation**, Fall 2017
8/2017 - 12/2017
 3. **CS203: Discrete Mathematics**, Fall 2017
8/2017 - 12/2017
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Conferences Attended

1. **Julia Conference 2018** at University College London.
8/2018
 - Conducted Project Poster Presentation on my Google Summer of Code project.
 - Received complete funding from Julia Project and NUMFocus.
 - **Blog post:** sohamtamba.github.io/GSoC/gsoc/2018/08/17/week-13.html
 2. **Latest Advances in Machine Learning and Data Science 2017** at NIT Goa.
10/2017
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Co-curricular activities

1. **Competitive Programming**
1/2016 - 3/2018
 - Rank 1 in Codetron, 2018, organized by Goa Engineering College during the technical festival, Spectrum.
 - Rank 1 in Programmatics, 2018, organized by National Institute of Technology Goa during the techno-cultural festival, Saavyas.
 - Rank 88 in ACM International Collegiate Programming Contest Asia Amritapuri Double Site Regional Contest, 2017.
 - Rank 13 in Inter-NIT Code-a-thon, 2017, organized by The Indian Society for Technical Education, NIT Bhopal chapter.
 - Rank 1 in Code Heat, 2016, organized by Manipal Institute of Technology's official computer science club, IECSE.

2. Online Courses

- Game Theory I by Stanford University & University of British Columbia, Coursera.
Score: 98.9%
 - Machine Learning by Stanford University, Coursera.
Score: 96.1%
 - Advanced Algorithms (Spring 2016) by MIT.
 - Design and Analysis of Algorithms (Spring 2015) by MIT OCW.
 - Probabilistic Systems Analysis and Applied Probability (Fall 2013) by MIT OCW.
 - Introduction to Algorithms (Fall 2011) by MIT OCW.
 - Mathematics for Computer Science (Fall 2010) by MIT OCW.
 - Introduction to Computer Science and Programming (Spring 2011) by MIT OCW.
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Programming Languages

1. C++: Proficient
 2. Julia: Proficient
 3. Python: Intermediate
 4. Octave: Intermediate
 5. VHDL: Intermediate
 6. SQL: Intermediate
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Extra-curricular activities

1. Toastmasters (Public Speaking)

8/2014 - 8/2016

- Former member of NIT Goa's Toastmasters club.
- Second place in NIT Goa Toastmasters Table Topics Contest (2015).
- Third place in NIT Goa Toastmasters Evaluations Contest (2015).

2. Organizing Activities

- Head Organizer of Programmatics 2017.
 - Head Organizer of Programmatics 2016.
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