



# GAYATHRI SAMBAMOORTHY

Post-Doctoral Fellow

Chemical Engineering

Indian Institute of Science, Bangalore



## SHORT BIO

I was born in Chennai and did my schooling in Kanchipuram. I have obtained the Institute Blues Award in IIT Madras in 2020, the Institute Research Award in 2019, IBSE Studentship in 2019 and ECCB 2018 Travel Fellowship.

I work in Computational Systems biology, particularly in studying metabolic networks for various applications.

## CURRENT RESEARCH

My current work focusses on understanding the structure of microbial communities and studying the metabolic interactions that predominate the existence of organisms in communities.

## CONTACT

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WEBSITE:

<https://sites.google.com/view/therapeutic-engineering-lab/members/current-members?authuser=0>

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## EDUCATION

### PhD, Biotechnology

**Indian Institute of Technology Madras**

July 2014 – Jan 2021

Thesis title: Understanding the evolutionary design principles in metabolic networks

Thesis Advisor: Prof. Karthik Raman

### M. Tech, Biopharmaceutical Technology

**A.C.Tech Campus, Anna University, Chennai**

2011 - 2013

### B. Tech, Biotechnology

**SASTRA Deemed University, Thanjavur**

2004 - 2008

## WORK EXPERIENCE AND FELLOWSHIPS

### Tata Consultancy Services - Systems Engineer

Oct 2008– Sep 2011

Design and development of Enterprise Data Warehouse for Banking

## SELECTED PUBLICATIONS

**Gayathri Sambamoorthy** and Karthik Raman, Understanding the evolution of functional redundancy in metabolic networks, **Bioinformatics**, 2018, 34: i981-i987.

<https://doi.org/10.1093/bioinformatics/bty604>

**Gayathri Sambamoorthy**, Himanshu Sinha and Karthik Raman, Evolutionary design principles in metabolism, **Proceedings of the Royal Society B: Biological Sciences**, 2019, 286:20190098.

<https://doi.org/10.1098/rspb.2019.0098>

**Gayathri Sambamoorthy** and Karthik Raman, MinReact: a systematic approach for identifying minimal metabolic networks, **Bioinformatics**, 2020, btaa497. <https://doi.org/10.1093/bioinformatics/btaa497>