Dr.-Ing. **Debdas Paul**

Postdoctoral researcher

computer science engineer, Computational biologist

Tübingen, Germany

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RESEARCH EXPERIENCE

06/2020 – present **Postdoctoral researcher** — University Hospital, Tübingen, Germany

- machine and deep learning based integration of single cell flow-cytometry and radiomics data to identify and monitor cancer-immunotherapy responses.
- Group leader: `Prof. Dr. Manfred Claassen`

`.Python / Keras & TensorFlow / cuML (GPU for ML) / CNN / Cross-domain learning`

02/2019 – 05/2020 **Postdoctoral researcher** — The Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

- Contributed to the development of QPuB - a tool that employs Bayesian statistical inference based on Markov chain Monte Carlo (MCMC) sampling to learn the posterior distributions of the conversion factors for the peptide products without further experimentation.
- Group leader: `Dr. Juliane Liepe`

`R / MCMC / Bayesian inference / Mass spectrometry / Immunology`

07/2017 – 10/2017 **Visiting researcher** — Harvard Medical School

- Developed a rule-based modelling approach based on the kappa-language framework for gene regulation.
- Collaborator: `Prof. Jeremy Gunawardena`

`Python / Kappa - a rule-based language / stochastic simulation`

11/2014 – 12/2018 **Doctoral researcher** — Institute for Systems Theory and Automatic Control

- explored the origin of robustness and its characterization in biological signaling networks as well as in gene regulation.
- Supervisor: `Prof. Dr. rer. nat. Nicole Radde`

`MATLAB / Systems theory / Systems biology / Mathematical modeling & Stochastic simulation`

EDUCATION

2014 – 2019 **Dr.-Ing.** — University of Stuttgart, Germany
Systems theory, Systems Biology, Magna cum Laude

2012 – 2014 **Master of Science & Master of Science (Technology)** — KTH, Sweden & Aalto University, Finland
Computational Systems Biology, Distinction

2009 – 2011 **Master of Engineering** — Jadavpur University, India
Computer Science & Engineering, First class

2005 – 2009 **Bachelor of Technology** — West Bengal University of Technology, India
Computer Science & Engineering, First class

KEY PROGRAMMING SKILLS

MACHINE LEARNING FRAMEWORK

HONORS & AWARDS

- **European Union's - Erasmus Mundus Fellowship (EU equivalent of Fullbright)**
- **Bilateral Mobility Grant, Govt. of Republic of Slovenia**

LANGUAGES

• **German** - A1 (Goethe-Zertifikat) • **English** - full working proficiency • **Bengali** - native