Amarendra Badugu

PhD Candidate
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Contact

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Languages

English

Programming

Python, R, Java, VB, C++

Hardware

Arduino

Software

MATLAB, FIJI/ImageJ
COMSOL, Meshlab,
Genomics tools
Transcriptomics tools

Wetlab

Drosophila Genetics

Microscopy

Confocal, 2 Photon
Lightsheet, STED
TEM

Education

2012-2016 **PhD candidate in Prof. Konrad Basler Lab** IMLS, University of Zürich, Zürich

The goal of the project is to create a tissue model in 3D from experimental data. The principles from the model can be applied to create real organs. The roles of the project involve designing/conducting experiments, analysing image data, developing *insilico* models and a process to create an organ

2009–2012 **Master of science** Royal Institute of Technology, Sweden

Specialization in computational and systems biology

2002–2006 **Bachelor of technology** JNTU University College of Engineering (Autonomous), India

Specialization in electronics and communication engineering

Work experience

2006–2009 **Intergraph Consulting Pvt Ltd** Hyderabad, India

Software analyst in Geospatial Intelligence Production Solution (GIPS) group

Involved in development of four cartography products. Reported to senior manager Sreenivasa Rao Majety

Research experience

2011–2012 Lab of **Prof. Dagmar Iber** D-BSSE, ETHZ, Switzerland

Research assistant

Developed *insilico* models of digit patterning during limb development in mouse

2011 Lab of **Prof. Jotun Hein** Department of Statistics, University of Oxford

Summer school student

Developed a single and multi structure genetic algorithm for inverse folding of RNA

2010 Lab of **Prof. Ingemar Ernberg** MTC, Karolinska Institutet, Sweden

Semester student

Predicting ARID3a protein binding sites on Epstein Barr Virus (EBV) genome with Prof. Erik Aurell, KTH

2006 Lab of **Prof. K Padma Raju** JNTU University College of Engineering (Autonomous), India

Shielding of electromagnetic radiation by various metals

Interests

Epithelial tissue level mechanics, 3D organ printing, 2D/3D tissue models, genetics, cell cycle, tumor models, microscopy, image analysis, software design, big data image processing

Publications

1. Badugu A et al., Digit patterning during limb development as a result of the BMP-receptor interaction. Sci. Rep. 2012;2:991
2. Lyngsø et al., multiple target inverse RNA folding. BMC Bioinformatics. 2012;13:260