

# Tejas Narayan

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## EDUCATION

### UNIVERSITY OF PENNSYLVANIA

BSE, COMPUTER SCIENCE

AND BIOENGINEERING

MAGNA CUM LAUDE

School of Engineering and Applied Science

Cum. GPA: 3.64 / 4.0

### INDUS INTERNATIONAL SCHOOL

Grad. May 2012 | Bangalore, India

IB Diploma, ICE Certificate(Distinction)

## HONORS

Dean's List 2015-2016

Bioengineering Senior Design Award

## SKILLS

### TECHNOLOGY

Very Comfortable:

Java • C# • NodeJS • R • SQL

Proficient:

MatLab • C++ (C++/CLI) •  $\text{\LaTeX}$  •

MongoDB

Some knowledge:

Android • Python • ReactJS • Meteor

### MATHEMATICAL

Differential Equations • Statistics •

Discrete Math • Multivariate Calculus

### OTHER

Languages:

English (Fluent) • Kannada (working) •

French (limited)

Interests:

Raas • Soccer • Muay Thai

## COURSEWORK

### COMPUTER SCIENCE

Operating Systems

Databases and Information Systems

Algorithms and Data Structures

Computer Architecture

### BIOENGINEERING

Image Analysis

Fluid Dynamics and Thermodynamics

Biomechanics and Biomaterials

## LINKS

Github://  tejasnarayan

LinkedIn://  tejas-narayan

Website://  tejas.narayans.com

## EXPERIENCE

### APPLIED PREDICTIVE TECHNOLOGIES | SOFTWARE ENGINEERING INTERN

May 2015 – July 2015 | Arlington, VA

- Worked as part of the Rollout Modeling team, doing full stack development including C#, R, Javascript and SQL
- Used Machine Learning in R to model and predict the runtime of other models
- Created SQL algorithms to support new calculations on large datasets
- Built a prototype of a settings optimizer for predictive models of performance

### NATIONAL INSTITUTES OF HEALTH | SUMMER RESEARCH FELLOW

May 2014 – July 2014 | Bethesda, MD

- Taught new users including graduate students and professional researchers how to use **Simmune**, the software developed by our lab led by **Dr. Martin Meier-Schellersheim**. Helped to test and evaluate the software.
- Constructed a biologically correct model of Toll Like Receptor 4 activation for use in further research
- Utilized the SimAnalyzer to understand different signaling topologies and stimulation effects and to analyze the data using R

### UW HARBORVIEW MEDICAL CENTER | UNDERGRAD RESEARCH ASSISTANT

May 2013 – Aug 2013 | Seattle, WA

- Developed an agent based model in C++ and MATLAB to mathematically model bone growth in mice under stress, with **Dr. Sundar Srinivasan**
- Used optimization algorithms such as Simulated Annealing with statistical analysis to match in vivo data.
- Reparametrized the mathematical model to better fit in vivo data in two different ways and statistically compared the results

## OTHER PROJECTS

Name	Aim	Technologies
OpenDose	Medical compliance in developing areas	Azure, C#, Node.js
DBT Device	Improve resolution of Breast Cancer screening	C#, C++/CLI
StreetChange	Homeless microphilanthropy in Phila.	Android, Java
BMES Website	Increase use by Bioengineering students	Wordpress

## EXTRA-CURRICULAR EXPERIENCE

### INTRO. TO COMPUTER SCIENCE (CIS110) | TEACHING ASSISTANT

Aug 2014 – May 2016 | Philadelphia, PA

Teach recitation and office hours, grade coursework, and help plan course

### PENN RAAS | SOCIAL CHAIR & ACTIVE DANCER

Feb 2014 – May 2016 | Philadelphia, PA

### BIOMEDICAL ENGINEERING SOCIETY | VP OF TECHNOLOGY

Sept 2013 - May 2016 | Philadelphia, PA

### ILMUNC INDIA 2013 | BUSINESS DIRECTOR & DISEC CHAIR

Nov 2012 – Oct 2013 | Philadelphia, PA & New Delhi, India

Co-founded and organized a conference for over 350 students from India, requiring coordination with groups of people on opposite sides of the world. Organized outreach, media and marketing efforts. Chaired a committee of 100 student and ran a team of students.