Sriram Moparthy

moparthy26@gmail.com | 973.287.9504

EDUCATION

UNIVERSITY OF PENNSYLVANIA
MSE in Bioengineering
May 2016 | Philadelphia, PA

DREXEL UNIVERSITY
BS in Biomedical Engineering
June 2014 | Philadelphia, PA

LINKS

LinkedIn:// **srirammoparthy**

Github:// **moparthys**

Website:// **moparthys.github.io**

SKILLS

PROGRAMMING

Python • R • C++ • BASH • Java • Matlab • LaTeX

TOOLS

AWS • Django • MySQL • Jupyter/IPython • conda • git • d3.js/dc.js/jquery

MACHINE LEARNING:

Bayesian networks • clustering • svm • random forests

FINITE ELEMENT ANALYSIS:

Hypermesh • ANSYS • ANSA • LS-DYNA • ABAQUS • CAD

PRESENTATIONS

ATD CERTIFICATION PROJECT

- Fall 2015, The Ohio State University
- Spring 2016, The Children's Hospital of Philadelphia

SUMMARY

High-performing, motivated Bioengineer with a passion for developing machine learning-based neuroprosthetics. Experienced in FEA and experimental biomechanics. Proficient in machine learning and statistics. Well-versed in Matlab, Python and C++.

PROJECTS

MASTER'S THESIS PROJECT | MALTESE LAB

The Children's Hospital of Philadelphia | Research Assistant
Aug. 2014 – June 2016 | Philadelphia, PA

- Implement motor vehicle standards to perform certification tests using pediatric ATD finite element (FE) models
- Develop child restraint systems and simulate ATD models in frontal car crashes
- Analyze head neck and thoracic injury data attained from crash simulations
- Derive mathematical relationships between implementation of hyper-viscoelastic material models in ABAQUS and LS-DYNA
- Master's Thesis: The effect of ATD certification specification variance on full-scale sled testing performance

SENIOR CAPSTONE PROJECT | MARCOLONGO LAB

Drexel University | Research Assistant
Sep. 2013 – June 2014 | Philadelphia, PA

- Conducted mechanical and cadeveric biomechanical testing following standards and internal procedures
- Assisted in both prototype synthesis and scripting a MATLAB program to determine optimal dosage
- Analyzed rheological data to derive constitutive mechanical relationships
- Presented project findings to faculty and coauthored a comprehensive design report

EXPERIENCE

UNIVERSITY OF PENNSYLVANIA | Teaching Assistant

Jan. 2015 – Dec. 2015 | Philadelphia, PA

- BE 200 - Introduction to Biomechanics: Held recitation and office hours for a class of 17 students, and graded homework assignments and examinations
- BE 350 - Biotransport: Graded homework assignments and examinations, reported on students' performance to course instructors, and managed course website

THE CHILDREN'S HOSPITAL OF PHILADLEPHIA | Intern

Apr. 2013 – Aug. 2013 | Philadelphia, PA

- Quantified spinal deformity from MRI images of pediatric patients
- Analyzed effects of the Vertical Expandable Prosthetic Titanium Rib (VEPTR) implant on thoracic spine biomechanics
- Shadowed and presented research findings to orthopeadic surgeons