Gowtham Kuntumalla

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TECHNICAL & MANAGEMENT SKILLS

- **Soft Skills:** MATLAB, SolidWorks, ANSYS Mechanical, AutoCAD, 3D Printing, PhotoLithography
- **Programming :** *Python (+ Machine Learning)*, C++, HTML, Linux Shell, LaTeX
- **Misc.:** *Project Management*, Prototype Fabrication, Manufacturing Techniques, Financial Investing

PROJECTS

Metal Polymer Hybrid Heat Exchanger System   Aug, 2018 – Current
Mentors: Prof.Placid Ferreira & Prof.Sanjiv Sinha, UIUC - **Design and Manufacturing**
  - Conceptualised design stage and spearheading the execution of plan of action
  - Generated CAD models and currently fabricating a custom manufacturing setup for production
  - Performed Thermo-Mechanical characterisation of sample specimens under a variety of test conditions

Wearable and Non-Invasive Glucometer   Jan – May 2018
Product Oriented Project guided by Prof.B Ravi, IIT Bombay - **Led a team of 4**
  - Developed a compact prototype that measures epi-skin glucose painlessly via Diffuse Reflectance Infrared Spectroscopy
  - Delivered Proof of Concept (PoC) with good correlations to commercially available pricking based glucometers
  - Received critical acclaim and accolades from the top doctors of Mumbai in a medical device expo

2D Particle Image Velocimetry (PIV)   April – June 2016
Programming Project, Guide Prof.Amit Agrawal, IIT Bombay - **Scientific Computing**
  - Implemented a computer code on C++ which is $\approx 100\%$ faster than similar software on MATLAB. It performs the 2D digital evaluation of flow velocity using FFT routine of Cross Correlation

PROFESSIONAL EXPERIENCE

Washington University in St.Louis   St.Louis, US
Summer Research Intern, Department of Energy and Chemical Engineering - **Scientific Computing**   *May – July 2017*
  - Undertook comprehensive literature review on fractals, aggregation processes and wrote a protocol for conducting computer simulations on high performance computing (HPC) cluster
  - Analysed effects of change in defining parameters like volume fraction on kinetics of the sol to gel transition

Techno-Managerial Role   Mumbai, India
Technical Councillor, Student Council of Hostel 4, IITB - **Led a team of 4**   *April 2016 – March 2017*
  - Awarded Color and Special mention for significant contribution to the development of hostel culture
  - Played an Instrumental lead role in achieving the coveted **1st**/16 position in Intra-college annual general championship

TEACHING EXPERIENCE

- Teaching Assistant for the courses "Introduction to Statics", "Engineering Mechanics" and "Differential Equations"
- Responsible for mentoring and conducting tutorial sessions for 60 students in each course, Spring 2017 – Fall 2018

EDUCATION

University of Illinois at Urbana-Champaign   Champaign, USA
Master of Science in Mechanical Engineering;   *August 2018 – Present*
  - **Coursework (in progress):** MEMS-NEMS Theory & Fabrication, Mfg. Data and Quality Systems

Indian Institute of Technology-Bombay   Mumbai, India
Bachelor of Technology in Mechanical Engineering with Minor in Computer Science   *Aug 2014 – July 2018*
  - **Coursework:** Machine Learning, Data Structure and Algo, Collaborative Eng., Heat Transfer, Cryogenic Engineering, Manufacturing Automation, Mechanical Measurements,Industrial Engineering & Operations Research, Manufacturing Processes & more. **CPI: 9.32/10.0**

HONORS AND AWARDS

- Awarded Kishore Vigyan Protsahan Yojana(KVPY) scholarship by Department of Science and Technology, India 2014
- Ranked among top 10 in the Mechanical Engineering undergraduate class of 2018