LIKHITH MANJUNATHA

https://laplaces-daemon.github.io/pages/

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EDUCATION

Kyushu University, Japan
M.E, Mechanical Engineering Oct 2018 – Sept 2020
Major GPA:

Kyushu University, Japan
B.E, Mechanical Engineering Oct 2014 – Sept 2018
Major GPA: 3.67

RESEARCH EXPERIENCE

Heat and Mass Transfer Lab, Kyushu University
Full-time Research Student Apr 2017 – Present
Supervisor: James J. Cannon
→ Determined the number of hydrogen bonded molecules in a given liquid to explicate the relationship between H-bonds and liquid properties such as freezing-phase change.
→ Performed molecular dynamics (MD) simulations to calculate transport properties of alcohols and developed a molecular-scale technique to gain an enhanced understanding of atomic interaction mechanisms that contribute to thermal conductivity and viscosity of liquids.
→ Implementing machine learning Bayesian statistical analysis to optimize alcohol structure and thermal conductivity

OTHER EXPERIENCE

Airtec Inc.
Fukuoka, Japan
Engineering Intern Nov 2016 – Dec 2016
→ Explored different business models to sell drain-timer valves in steel plants
→ Initiated and established potential business connection to valve makers in India
→ Visited steel plants, air compressor manufacturers, a calcium carbonate factory and various business proceedings to explore markets for drain timer valves in Taiwan.

Toyota Kirloskar Motor
Bangalore
Engineering Intern Feb 2016 - Mar 2016
Was responsible for installing new welding equipment and process change in the manufacturing line. Performed analysis on cycle-time and accuracy of the machine, parameter settings and adjustments after installation.

Indian Institute of Science, Bangalore
Laboratory Assistant Dec 2013 - May 2014
Supervisor: M.K Raghavendra
Completed a study of experimental lab-work for 2nd year undergraduate Physics majors and set up experiments to assist them. Also assembled and operated an Nd:YAG Laser under the assistance of Prof. Raghavendra.

TECHNICAL SKILLS

- Classical molecular dynamics simulation and visualization
- MCMC (Markov Chain Monte Carlo)
- Machine learning based optimization techniques (Bayesian)
- Numerical analysis
- Programming languages: Python, R, Java

- Unix/Linux Shell Scripting

Other software: LAMMPS, VMD, Scilab

AWARDS AND HONORS

1) **Winner of HP (Hewlett-Packard) Ideathon** — Aug 2017
   Best concept award for business applications of Immersive technology

2) **Awarded an International Business trip to Taiwan** — Feb 2017 (5 days)
   Accompanied the CEO of Airtec Inc. in visiting steel plants and business proceedings to explore markets for drain timer valves in Taiwan

3) **Awarded JASSO (Japan Student Services Organization) Scholarship** — Apr 2016 - Present
   Direct recommendation by Kyushu University based on academic performance

4) **Certificate of Proficiency in** — Mar 2013
   Mathematics, Computer Programming and Physics

POSTS HELD/ORGANIZATIONAL WORK

1) Served as a student *ambassador* for ITOSHIMA city, to plan and conduct study tours with promotional intent of industrial, agricultural, natural and historical aspects of the city. (Sept 2017 – Mar 2018)

2) *Student mentor* for **Linear Algebra I** for the duration Apr 2017 – Aug 2017, as a part of IUPE for 1st year undergraduate students

3) *Student mentor* for **Linear Algebra II** for the duration Sept 2017 – Feb 2018, as a part of IUPE for 2st year undergraduate students

4) Selected as a QUEST (Kyushu University Engineering Science Technology) ambassador as a part of a summer program to help guide a group of international students through their scheduled classes and demonstrations

CONFERENCE PRESENTATIONS AND INVITED TALKS

Kyushu University Future Creators in Science Project (December 2018, Fukuoka, Japan) **(Invited talk)**

International Conference for Undergraduate Research (25 September 2018, Fukuoka, Japan)

JSME Thermal Engineering conference (20-21 October 2018, Toyama, Japan)
L. Manjunatha, H. Takamatsu, J. J. Cannon, *An investigation into application of the Green-Kubo method in molecular simulation to help understand the mechanisms of thermal conductivity of alcohols.*

The 8th Symposium on Micro-Nano Science and Technology (31 Oct- 2 Nov 2017, Hiroshima, Japan) **(Poster)**
L. Manjunatha, H. Takamatsu, J. J. Cannon, *Investigation into influence of hydroxyl group placement on the thermal conductivity of propane-base alcohols using molecular dynamics simulation.*

MEMBERSHIP

The Japan Society of Mechanical Engineers (JSME), Member