

Dr. Mamatha M N

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EDUCATION

Vinayaka Missions University, Salem, Tamilnadu

Doctorate of Philosophy (Ph.D) in Biomedical Instrumentation

Jan 2008 – Aug 2012

- **Specialization:** Brain Machine Interface

- **Thesis:** Development of Novel Algorithms and Architectures for Patient Care Monitoring System and Diagnosis.

Bangalore University, Bangalore, Karnataka

Master of Engineering (M.E) in Electronics and Communication Engineering

Aug 1997 – Apr 1999

Mysore University, Mysore, Karnataka

Bachelor of Engineering (B.E) in Instrumentation Technology

Aug 1987 – Apr 1989

EXPERIENCE

SPEAR (Systems for Performance, Energy, and Resiliency) Group

- Research Assistant

Sep 2016 – Present

- Exploring areas of batch scheduling in the field of high performance computing.
- Working on evaluating custom batch scheduler on slurm.

Data-Intensive Distributed Systems Laboratory

- Undergraduate Research Fellow

May 2016 – Sep 2016

- Worked on linear run time algorithm based on label propagation for partitioning a billion node Graph that will be implemented on GRAPH/Z.
- **Supervisor:** Dr. Ioan Raicu

National Instruments

- Hardware and Graphical System Design Intern

May 2015 – Sep 2015

- Wrote system software involving LabVIEW for Patient Care and Monitoring System Signals.
- Using DAQ (MyDAQ and MyRIO) to collect, analyze and process real time Patient Data.
- Using NI Multisim and NI Ultiboard for Circuit and Power Analysis.
- Certified LabVIEW Associate Developer Certification.

zooKKs Incorporated

- Software Engineering Intern - Part Time

Sep 2014 – Sep 2016

- Full-stack development and deployment for several projects.

Computer Science - College of Sciences

- Teaching Assistant

Aug 2015 – Jan 2016

- Grade lab exercises and create project assignments for Object Oriented Programing in Java.
- Provide written code reviews for students' Java Assignments.

ACADEMIC AWARDS

- **Experiencing HPC for Undergraduates Program**

Nov 2016

PhD Thesis titled "Development of Novel Algorithms and Architectures for Patient Care Monitoring System and Diagnosis" has been identified by EPFL, Center for Neuro-prosthetics and Institute of Bioengineering Switzerland, one of the leading in the design and development of head caps for Brain Machine Interface.

- **Dean's List**, College of Sciences

2014 – Present

For attaining a semester GPA of at least 3.50.

- **International Student Scholar - Scholars Program**

2014 – Present

\$120k tuition scholarship for undergraduate studies at Illinois Institute of Technology.

- Dean Betts' Summer **Undergraduate Research Fellowship**. College of Sciences.

May 2014

SELECTED ACHIEVEMENTS

- Selected as **Microsoft Student Partner** to represent Microsoft at Illinois Institute of Technology.

- Selected among 120 students over Midwest Region for **Campus 1871** [April 8-10, 2016].

- Honorable Mention (\$200 Cash), **CS2050 Big Data Hackathon**

- 2nd Place, "AllServe", StartUp IIT, Collegiate Entrepreneurs' Organization Pitching Competition.

- **Gold**, International Standard of Abacus Mental Arithmetic, Malaysia Book of Records.

- Chosen by the **Government of India** to participate in one week Internship Program at Inspire Science Internship Camp, Christ University.

- Part of a selected group of students from the **UK-India Education and Research Initiative** (UKIERI) Student Exchange and Collaboration Program.

SKILLS

- **Proficient:** Java, Python, C, \LaTeX , SQL, Flask, Mathematica, MATLAB.
- **Familiar:** OpenMP, pthreads, MPI, CUDA, AWS.