Arvind Ravichandran

Eschenweg 15, Jülich, 52428, Germany
a.ravichandran@fz-juelich.de ♦ Cell: (49) 160-106-9254 ♦ Work: (49) 2461-61-6144

EDUCATION

PhD candidate in Physics (Forschungzentrum Jülich, Germany) 2014-current
- Mentored by Prof. Dr. Gerhard Gompper
- Research: Computational modeling of kinesin motors and cytoskeletal networks

Masters in Chemical Biomolecular Engineering (University of Pennsylvania) 2012-2014
- Final GPA: 3.60
- Under research fellowship
- Research: Numerical and analytical simulation of particle interactions on interfaces.

B.S in Chemical Biomolecular Engineering (Johns Hopkins University) 2009-2012
- Final GPA: 3.63
  - Attained Dean's List in 5 semesters

GCE A' Level, (Raffles Junior College, Singapore) 2007-2008
- Chemistry, Biology, Mathematics, English, Economics
- 'A' grades in all subjects

GCE O' Level (St. Joseph's Institution, Singapore) 2003-2006
- 'A' grades in all 10 subjects

SKILLS

Development: C++ (MPI, OpenACC, Boost libraries), C, Python (cython, numpy, matplotlib, multiprocessing, hd5py), Matlab, Haskell, Git, Bash, Shell
Design: Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Adobe Muse
Skills: Molecular Dynamics, Monte Carlo, PCA, Statistical Mechanics, Computational Geometry, Fluid Dynamics
Languages: Fluent in English, Tamil and Hindi. Basic Spanish

AWARDS

Soft Matter Poster Prize (Soft Matter Journal) 2015
Otto-Bayer Fellowship (Bayer Science and Education Foundation) 2014-2015
Loy Wilkinson Award (Johns Hopkins University) 2012
- Demonstrating record of academic excellence and leadership

Vredenburg Scholarship (Johns Hopkins University) 2011
- Funded my research at Julius-Kühn Institut, Braunschweig, Germany

SINDA Award for excellence in GCE A'Level 2009
Academic Excellence Award (Raffles Junior College) 2008
Top Indian Pupil Award for GCE O'Level in Singapore 2008

RESEARCH EXPERIENCE

Research Assistant (Johns Hopkins Medical Institute) 2010-2013
- Drug delivery: Chemotherapeutic nanoparticles for small-cell lung cancer.

Research Assistant (Julius-Kühn Institut, Braunschweig, Germany) 2011 (July – August)
- Vredenburg Scholarship (JHU) - Mapped Ethiopian Pepper Mottle Virus Genome

Summer Student (University of Cambridge, UK) 2009 (June)
- Reach Cambridge – Biotechnology summer course

TEACHING EXPERIENCE

Teaching Assistant
- Numerical Methods – ENM 502 (UPenn) 2014 (Spring)
- Product/Process Design – CBE 500 (UPenn) 2014 (Spring)
- Chemical and Biological Process Analysis – CHEMBE 202 (JHU) 2013 (Spring)
- Modeling and Statistical Analysis – CHEMBE 305 (JHU) 2011 (Fall)

PROFESSIONAL AND LEADERSHIP EXPERIENCE

Client Reconnaissance (AquaAudit, Singapore) 2011 (June)
- Worked with Australian, sewage aeration equipment firm, AquaAudit to arrange partnership with Public Utilities Board (Singapore)

Johns Hopkins Math Tournament 2012
- Organizing committee for JHMT, for high school students from around America

Things You Can Do (Raffles Junior College, Singapore) 2008
- Organizing committee for spreading environmental awareness to high school students.

Captain of Tennis Team (St. Joseph's Institution) 2003-2006