LATIFAH HAMZAH

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Campus Address: MacGregor House 450 Memorial Drive Cambridge, MA 02139 Permanent Address: 2A, Jalan SS3/2 47300 Petaling Jaya Selangor, Malaysia

Education

Massachusetts Institute of Technology, Cambridge, MA

June 2012

Candidate for B.S. in Mechanical Engineering. Minors in Energy and Music. GPA 5.0/5.0.

Relevant Coursework: Mechanics, Materials, Thermal-Fluids, Dynamics, Advanced Energy Conversion. *Awards:* Gordon Engineering Leader, Emerson Music Scholarship, Burchard Scholar, MIT International Science and Technology Initiative 2.0 Grant Winner, MIT Concerto Competition 2010 Winner.

University of Cambridge, England, UK

June 2011

Participated in Cambridge-MIT Exchange, read Third Year Engineering Tripos.

Relevant Coursework: Machine Design, Thermodynamics, Heat & Mass Transfer, Fluid Mechanics. *Awards:* Lady Dacre Music Prize, World Theatre Show (Ger) Winners, Badminton Cuppers Champions.

Sevenoaks School, England, UK

May 2008

Achieved maximum 45/45 points in May 2008 International Baccalaureate Examinations. *Awards*: Major Academic & Music Scholar; Maths & Creatives Faculty Prize, Science Merit Prize.

Experience

Shell Refining Company (FOM) Sdn. Bhd., *Inspections Trainee*, Malaysia July – Aug 2011 Investigated susceptibility of equipment built without consideration to but operated in regimes sensitive to low temperature brittle fracture for entire plant. Analysed results and provided recommendations.

Goldstein Lab Undergraduate Research, Cambridge, England Sept 2010 – June 2011 Assembled a tracking microscope to study the effect of viscoelastic fluid flows on free-swimming organisms (Volvox) in its own reference frame.

Université Catholique de Louvain, *Visiting Researcher*, Belgium May – Aug 2009, 2010 2010: Won MISTI 2.0 grant to develop a population connectivity model for the Great Barrier Reef (GBR), harnessing the Second-Generation Louvain-la-Neuve Ice-Ocean Model. Worked with James Cook University and the Australian Institute of Marine Science.

2009: Researched open boundary condition to reproduce tidal & low frequency circulations on GBR. Also used Particle Image & Tracking Velocimetry to study dam-break flows.

MIT Design, Build, Fly, Cambridge, MA

Aug 2008 – April 2010

Assisted with prototype making and testing, leading to optimisation of assembly and handling. Placed 4^{th} in the 2009 Cessna/Raytheon Missile Systems Student DBF Competition.

Rolls-Royce, *Field Support Office Technical Support Intern*, Selangor, Malaysia Aug 2007 Investigated the oil, fuel, air, hydraulic, anti-ice and anti-fire systems of Trent 800 engines. Created oil consumption charts and assisted with servicing and repair of engines.

Community Service

STIMULUS, Teaching Assistant, Cambridge, UK

Jan – June 2011

Offered weekly assistance in Maths and Literacy to the Year 4 class at Ridgefield Primary School, providing additional support to weaker children and a newly-arrived Romanian child.

Students for Bhopal, Cambridge, MA

Jan 2010 – Present

Work in conjunction with the International Campaign for Justice in Bhopal to raise funds and awareness of the current situation. Aim to find a long-term solution to the water issue.

Alpha Phi Omega, *Service VP (Dec 09 – May 10)*, Cambridge, MA

Jan 2009 – May 2010 Conducts weekly service projects in the Boston area. Raised \$3,893.73 for Partners in Health as Big Screw Chair 2010. Campus Book Exchange inventoried over 2000 books, serving over 500 customers.

Heartstrings Concerts, Violinist, Selangor, Malaysia

1998, 2002, 2006

Performed at concerts and recorded a solo CD to raise RM100,000 ~ USD30,000 to benefit children's homes and purchase a ventilator for the Paediatric ICU of University Hospital.

Activities

Music, *Violinist*, Cambridge, MA and England, UK

Dec 1993 – Present

Gave solo recital in April 2010. Principal 2nd violin, CUSO. Member of MIT Chamber Music Society.

Football, *Striker/Wide Midfielder*, England, UK

Sept 2006 – June 2011

Second-team, University of Cambridge. Semi-finalists, Senior Cup, Independent Schools' FA (2008).

Skills

Languages: English, Chinese–Mandarin, Malay, French, German

Computer: MS Office, Python, LaTeX, MATLAB, ProDesktop, SolidWorks, JACOBIAN, HTML