Brahm Prakash Mishra

Email: bpmishra92@gmail.com Github: github.com/brainwave

EDUCATION

NATIONAL INSTITUTE OF TECHNOLOGY, TRICHY
B.Tech in Mechanical Engineering
May 2010 - May 2014
Cumulative GPA: 8.99 / 10.00

UNIVERSITY OF CALIFORNIA SAN DIEGO
Graduate Studies
Sep 2016 - Sep 2017
Credits Earned: 21 / 36

SKILLS

PROGRAMMING
C++ • Embedded C • Go
Python • Shell Scripting(Bash)

FRAMEWORKS
Tensorflow (learning) • ROS
Gazebo • OpenGL • OpenMP
MATLAB, Simulink • GNU/Linux
CATIA • Microsoft BI Suite
(SQL, SSIS, SSAS, SSRS)

LANGUAGES
English • Hindi • Oriya
Tamil(Spoken)

COURSEWORK

GRADUATE
Robot Motion Planning
Control System Design
Optimal Estimation
Analysis of Numerical Algorithms
Human-Computer Interface Design
Research
Embedded Software Systems
(Distributed and Concurrent)

UNDERGRADUATE
Applied Electronics and Electrical Engineering
Mechatronics
Computer Graphics Software Design
Computational Fluid Mechanics
Finite Element Analysis
Corporate Communications

EXPERIENCE

BOLT 3D PRINTERS PRIVATE LIMITED
Design and Implementation Engineer
December 2015 - September 2016 | Chennai, India

- Led a 6 person team that designed and built an industrial grade slicer software for an SLA 3D Printer. A slicer converts 3D model of an object into stacks of 2D cross sections suitable for printing. (C++)
- Optimized the slicer to bring down its execution time from 5 minutes to 0.35 seconds on a standard model. (through algorithmic and OpenGL optimizations).
- Designed and Prototyped a novel, continuous SLA 3D Printer. Researched for patentability.

THOROGOOD ASSOCIATES
Business Intelligence and Analytics Consultant
July 2014 - August 2015 | Bangalore, India

- Supported and Enhanced British Sugar production systems for Silver Spoon (built using Microsoft BI suite).
- Responsible for prevention and resolution of critical system errors.
- EPOS Data Analysis and Reporting for Japan Tobacco International. (SQL, .Net)
- Development and Support projects for Thorogood Management Information and Planning System - MIPS. (C#)

ROBOTICS AND MACHINE INTELLIGENCE GROUP (RMI)
Programming Team Lead
NIT Trichy, India
September 2013 - May 2014 | Trichy, India

- Undertook individual and group projects in experimental robotics (below).
- Hands-on experience with CAD, CAM and CAE processes on novel contraptions.
- Mentored sophomors and led teams that participated in national level Robotics competitions in engineering colleges across India.

MOLECULAR DYNAMICS LAB, IIT BOMBAY
Junior Summer Research Fellow
May 2013 - August 2013 | Mumbai, India

- Built a Linux Beowulf cluster using 40 itanium processors (CentOS).
- Implemented massively parallel monte carlo simulations.

CENTRAL TOOL ROOM & TRAINING CENTRE
Engineering Intern
May 2012 - July 2012 | Bhubaneshwar, India

- CAD/CAM/CAE of Volkswagen V Engine Parts
- Process Optimization of ISRO PSLV C-11 Rocket components

REPRESENTATIVE PROJECTS

YEAR	Prof./Team	Project Title
2017	Dr. Scott Klemmer	AI photo enhancement using eye-tracking
2017	Dr. Rajesh Gupta	Realtime Air Traffic Control System in Golang
2016	Dr. Sonia Martinez	Parallelized Motion Planning in Randomized Environments
2016	Dr. R. Bitmead	Control system design for a mobile unstable wheeled robot
2014	RMI	Low Cost 3-D Printer from automobile parts
2013	RMI	Chasis design for a high speed ATV
2012	RMI	Kinect-Pandaboard interface through ROS
2011	Individual Projects	Maze Solvers, Tracking Robots, etc.