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

COURSEWORK

GRADUATE

Robot Motion Planning
Embedded Real-time Concurrent Systems
Control System Design
Optimal Estimation
Analysis of Numerical Algorithms
Advances in Robot Manipulation
Human-Computer Interface Design
Research

UNDERGRADUATE

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

SKILLS

PROGRAMMING LANGUAGES

Go • C++ • Python
C • R • SQL • VB.Net
Sharepoint • Excel VBA
Shell Scripting(Bash)

PACKAGES/FRAMEWORKS

Tensorflow learning •Numpy/Scipy
ROS • OpenGL • OpenMP MATLAB, Simulink • MS SQL • SSIS • SSAS
V-Rep • Vim • LaTeX

SPOKEN LANGUAGES

English • Hindi • Oriya
Tamil

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	Increasing Appeal of Visual Media with AI Enhancements
2017	Dr. Rajesh Gupta	Realtime Air Traffic Control System
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	Designed & Fabricated a Low Cost 3-D Printer
2013	RMI	Rehabilitative Exoskeleton
2012	RMI	Fabrication & Reliability Testing of a High Speed Autonomous All Terrain Vehicle
2012	RMI	Interfacing the Kinect & TI Pandaboard using Robot Operating System (ROS)
2011	Individual Projects	Maze Solvers, Tracking Robots, etc.