Brahm Prakash Mishra

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

EDUCATION

NATIONAL INSTITUTE OF TECHNOLOGY, TRICHY

B.Tech in Mechanical Engineering
Graduated in May 2014
Cumulative GPA: 8.99 / 10.00

COURSEWORK

GRADUATE

Robot Motion Planning
Concurrent Embedded Systems
Analysis of Numerical Algorithms
Human-Computer Interaction Design
Control System Design
Optimal Estimation
Robot Manipulation

UNDERGRADUATE

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

SKILLS

PACKAGES/FRAMEWORKS

Tensorflow •Numpy, Scipy • OpenGL
MATLAB and Simulink •
ROS • V-Rep • LaTeX• CATIA
COMSOL, ANSYS • Eagle

PROGRAMMING

C++ • Python • C
Embedded C •Ladder Logic
R • SQL • VB.Net • Excel VBA
Shell Scripting (Bash)

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.
- Optimized the slicer to bring down its execution time from 5 minutes to 0.35 seconds on a standard model.
- Designed and Prototyped a novel, continuous SLA 3D Printer. Researched for patentability.
- Experience in software and hardware aspects of new design.
- Hands on experience in Design for Conformance, Manufacturability, Serviceability and Reliability.

THOROGOOD ASSOCIATES

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

- Supported and Improved Data Analytics packages for leading European Industries
- Undertook programming projects for TG Management Information and Planning System (MIPS).

ROBOTICS AND MACHINE INTELLIGENCE GROUP

Head, Programming and Embedded Systems
NIT Trichy, India
September 2013 - May 2014 | Trichy, India

- Undertook individual and group projects in experimental robotics (listed below).
- Hands-on experience with CAD, CAM and CAE process 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 cluster of 40 computers and performed massively parallel Molecular Dynamic simulations.

CENTRAL TOOL ROOM & TRAINING CENTRE

Engineering Intern
May 2012 - July 2012 | Bhubaneshwar, India

- Designed, Manufactured and Assembled a novel 'W' engine.

REPRESENTATIVE PROJECTS

YEAR	Prof./Team	Project Title
2016	Dr. Sonia Martinez	Parallelization of Motion Planning Algorithms
2016	Dr. R. Bitmead	Control System Design for a mobile unstable wheeled robot
2014	RMI	Designed and Fabricated a Low Cost 3-D Printer
2012	RMI	Design, Fabrication and Reliability Testing of a High Speed Autonomous All Terrain Vehicle
2012	RMI	Interfacing the Kinect with TI Pandaboard using Robot Operating System (ROS)
2011	RMI	Inverse Kinematics of a 3-DOF Sketching Arm
2011	Individual Projects	Maze Solvers, Tracking Robots, etc.