Rahul Shriram Jinturkar

Phone: (469) 514-5648 Address: 206 West 109th Street, Apt LL1, New York, NY 10025 Email: rj2512@columbia.edu
LinkedIn: www.linkedin.com/in/rahuljinturkar

EDUCATION

Columbia University: Fu Foundation School of Engineering & Applied Science **New York, NY**
M.S. in Mechanical Engineering: Robotics and Control Aug 2017- Dec 2018
Courses: Robotics Manipulation, Mechatronics & Embedded Micro., Control Theory, Digital Manufacturing

Pune University: Sinhgad College of Engineering **Pune, India**
B.E. in Mechanical Engineering Jul 2012- Jun 2016
Courses: CAD/CAM, Mechatronics, Basics of Electrical and Electronics Engineering

PROJECTS AND RESEARCH

Chexter: A Checkers Playing Robot | Columbia University Jan 2018-Present

- Programming the Baxter robot using ROS to ultimately play a board game with an opponent.
- Using computer vision to identify locations of objects/game pieces.
- Use robot control and manipulation to grasp the game piece and place it.

Digital Manufacturing: Additive Manufacturing, Food Printing and Laser Cutting. Jan 2018-Present

- *Laser Cutting*- Wrote a program to generate SVG layout | Software driven fabrication
- *Additive Manufacturing*- Design using Lattice generating software | Print using 3D printer
- *Food Printing*- Will be fabricating an intricate food shape.

Nailbot: Nail Painting Robot Sept-Dec 2017

- Designed a 5 DOF (PPPRR) mechanism.
- Developed a motion planning path of end effector for efficient operation.
- Simulated the robot using MATLAB.

Design and Prototyping of Bio-Mimetic Serpentine Robot Nov-May 2016

- Created a bio-inspired robot having propagation pattern resemblance to the serpent curve, powerful motion ability and a good environmental adaptability.
- Used ATMega 2560 microcontrollers and DC motors to build a working model.
- Worked in a team environment with four fellow students.

BAJA SAE All-Terrain Vehicle Aug-Feb 2015

- Designed the chassis of BAJA ATV using Computer Aided Design (Catia) software.
- Analysed the roll cage using techniques including Ansys APDL, HyperMesh.
- Had manufacturing experience using various techniques and materials such as AISI 4130, polyurethane etc.
- Led the core designing team having six members.

WORK EXPERIENCE

Indian Institute of Technology, Bombay | Research Intern Jul 2016-Nov 2016

- Developed a mechanism to increase the efficiency of a rice transplanter and provided the affordable solution to low income farmers in India. This was eventually tested in rice fields.

Nuclear Power Corporation of India Ltd | Project Trainee Dec 2015

- Studied feed water system at Tarapur Atomic Power Station (TAPS 3 & 4) and prepared thorough report for the company.
- Studied the production plant layout of a Pressurized Heavy Water Reactor with a net electrical power of 540 MWe.
- Examined the feed water system for the plant.
- Identified potential design challenges and present the report to the Chief Engineer, college faculty,

TECHNICAL SKILLS

- **Robotics & Programming:** Python, MATLAB, ROS, Open CV, C/C++.
- **CAD & Analysis:** SolidWorks, Pro E,Inkspace, CATIA, AutoCAD, Ansys APDL, Mastercam.
- **Microcontrollers:** Embedded Microcontrollers - MicroChip**,** Familiar with microcontrollers of the AVR family.
- **Manufacturing:** 3-D Printing, Lathe Machine, Drilling Machine, Arc Welding Machine, MIG Welding Machine.