Jobin Binoy George

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EDUCATION

Columbia University, SEAS — New York, NY
Master of Science in Mechanical Engineering (Concentration: Robotics and Control) — Expected Dec 2021
Coursework: Deep learning and neural networks, Data Science for Engineering, Advanced Robotics

New York University, Tandon School of Engineering — Brooklyn, NY
Bachelor of Science in Mechanical Engineering [GPA: 3.6] — May 2020
Minors in Aerospace Engineering, Nuclear Engineering and Computer Science

PROFESSIONAL EXPERIENCE

Columbia University ROAM Lab — New York, NY
Graduate Research Assistant under the supervision of Dr. Matei Ciocarlie — Nov 2020 - Present

NYU Mechatronics Lab
Robotics Research Assistant — Brooklyn, NY, Aug 2019 - May 2020

- Simulated multi-nodal robotics behavior on ROS Gazebo using models of turtle-bots
- Implemented tele-operation scripts in Python to study movement of a single node as well as movement of system as a whole
- Wrote publisher and listener methods in C++ to print location and orientation of a node relative to another node
- Linked all existing nodes to a master node and tested communication within a system with TCP/IP protocols

NYU LaGuardia Studio — New York, NY
Student 3D Specialist — May 2018 - Sep 2019

- Developed intricate prototypes, 3D scans and sculpts using SolidWorks, CATIA and RHINO 3D for professors and students
- Brainstormed with new clients regarding development of new assistive technology
- Tutored clients in modelling and mesh restructuring on Autodesk NETFABB and Ansys
- Assisted in maintenance and operation of various 3D printers (3D Systems, FORTUS, ULTIMAKER) and various 3D scanners (ARTEC Spider, ARTEC Eva and Faro Arm)

KPMG — Abu Dhabi, U.A.E
Financial Analyst Intern — Jun 2017 - Sep 2017

- Collaborated with senior auditors and associate directors in preparing year-end audits of engineering/ military firms
- Compiled information on engineering firms to prepare presentations for high level management

ACADEMIC PROJECTS

Mechanical Wheelchair for Paraplegic Patients — Brooklyn, NY
New York University — Sep 2019 – May 2020

- Modelled a mechanical wheelchair, allowing users an ability to stand up, on SolidWorks
- Optimized mechanism of gas springs and linkages on Ansys to smoothen the transition
- Facilitated my senior design team in reducing overall weight of wheelchair by 10% removing excess material on footrest and frame of wheelchair during fabrication processes

Structural Analysis of the Transportation Pod for the NYU Hyperloop Team — New York, NY
New York University — Sep 2018 – Aug 2019

- Performed thermal and dynamic structural analyses on Ansys
- Re-designed braking mount and increased strength of mount at high-stress points
- Employed stability suspension component using horizontally positioned gas struts to restrict lateral motion of system by 30%

ACTIVITIES

NYU Mechanical Engineering and Computer Science Study Group — Sept 2016 – May 2020

- Initiated a chat and in-person mentoring service for students needing academic and counseling assistance outside lectures increasing peer grades by a minimum of 50%

SKILLS

Programming: ROS, MATLAB, Python, C++, JAVA, Google Cloud Platform, CUDA/Julia, HTML/CSS, R
Design: SIEMENS NX, SOLIDWORKS, AutoCAD, Rhino 3D, CATIA, DESIGNX
Analysis: ANSYS Mechanical APDL, ANSYS Workbench, Altair Optimization
Prototyping: Additive Manufacturing, Welding, Machining, CNC Milling, Acrylic Laser Cutting