Aneri Muni

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

BS in Electrical Engineering
May 2018 | Atlanta, GA
Dean's List

Study Abroad: Georgia Tech
Summer 2014 | Lorraine, France

LINKS

Github:// **amuni3**
LinkedIn:// **aneri-muni**

COURSEWORK

UNDERGRADUATE

Intro to Automation and Robotics
Feedback Control
Control System Design
Signals and Systems
Electromagnetism
Electrical Energy Systems
Microelectronic Circuits
Computer Communication
Data Structures and Algorithms
Digital Signal Processing
Circuit Analyses

SKILLS

TECHNICAL

Java • Matlab • C++ •
CSS • HTML • Assembly •
VHDL • RobotC

ROS • Linux • PCL •
MoveIt! • OpenCV • MySQL

Softwares:
Quartus II • MathCAD •
Multisim • LabVIEW •
LTSpice • AutoDesk Inventor •
Eagle • MS Office

LEADERSHIP

• Undergraduate Research Ambassador
• Women in ECE (WECE)
Newsletter Chair | Publicity co-chair
• ECE Ambassador

EXPERIENCE

AUTONOMOUS SYSTEMS LAB | Visiting Student Researcher

June 2017 – August 2017 | ETH Zurich

- Programmed ABB's YuMi robot to rebuild a block stack after scanning it.
- Developed pick-place pipeline using MoveIt! and object-detection pipeline using PCL and ASUS PrimeSense sensor.

GEORGIA TECH RESEARCH INSTITUTE | Robotics and Image Processing Co-op

August 2015 - December 2015 | Georgia Tech

- Programmed agricultural robot to maneuver autonomously in poultry houses.
- Implemented path finding and obstacle avoidance algorithms using Kinect data.

May 2016 - August 2016 | Georgia Tech

- Developed user friendly Windows GUIs in C++ to run a pedestrian tracking software, process the data and access results using MySQL.

SCHOOL OF MATHEMATICS | Teaching Assistant

January 2016 – May 2016 | Georgia Tech

- Taught **Differential Equations** a class of 30 students by holding recitations.

CENTER FOR ACADEMIC SUCCESS | Peer Tutor

August 2014 – May 2015 | Georgia Tech

- Taught **Differential Equations** to class of 50 students by holding study sessions.

RESEARCH PROJECTS

DYNAMIC SCENE RECONSTRUCTION

Jan 2017 – Present | Georgia Tech Research Institute

- 3D tracking and reconstruction of dynamic, non-rigid scenes.

QUADRUPED ROBOT

August 2016 – December 2016 | IVALab, Georgia Tech

- Programmed a quadruped robot that emulates the walking gait of quadrupeds.
- Designed 3D model of quadruped with an actuated spine in AutoDesk Inventor.

AUTONOMOUS BLIMPS

May 2015 – December 2016 | Georgia Tech Systems Lab

- Performed system identification and developed PID controllers to control 3D motion of a robotic helium blimp.
- **Nano Blimp** – developed a smaller version of blimp to create a sensor network.

AWARDS

2017	ThinkSwiss Research Scholarship
2017	James G. Wohlford Scholarship
2016, 2015	President's Undergraduate Research Award
2015	IEEE Control System Society Video Contest, 3rd position

PUBLICATIONS

[1] C. T Usher, W. D Daley, B. P Joffe and A. Muni. Robotics for Poultry House Management. ***ASABE Annual International Meeting***, 2017.

[2] S. Cho, V. Mishra, Q. Tao, P. Varnell, M. King-Smith, A. Muni, W. Smallwood and F. Zhang. Autopilot Design for a Class of Miniature Autonomous Blimps. ***Conference on Control Technology and Applications***, in press.