Titus Lungu

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EDUCATION

UCLA M.S. Machine Learning and Artificial Intelligence
Sept 2016 - June 2017 / Los Angeles, CA
- Facial recognition/generation, election prediction, vision, cognition, reasoning, big data, social networks

Udacity Artificial Intelligence Nanodegree / 2017

Udacity Deep Learning Foundations Nanodegree / 2017

Cleveland State Univ. (CSU) B.S. Mechanical Engineering
Aug 2012 - May 2016 / Cleveland, OH
- GPA: 3.90; Summa c. Laude; Honors Diploma
- Tau Beta Pi Engineering Honors Society

EXPERIENCE

Center for Vision, Cognition, Learning, and Autonomy
Robotics Control / Sept 2016 - Present / UCLA
- Investigated control methods to optimize robot velocity/torque.
- Tested robot's force/torque sensors to ensure accurate readings.
- Learned ROS to control Rethink Robotics Baxter robot.

Mechanics and Control of Living Systems Laboratory
Machine Learning / May 2015 - July 2016 / CSU
- Designed and built robot, and used it to test machine learning algorithms for motion control.
- Implemented tactile feedback to teach the robot new motions.
- Updated arm simulation code to allow force guided manipulation.

Senior Design Capstone Project
Active Surveillance as a Service / Aug 2015- May 2016 / CSU
- Implemented live pedestrian tracking surveillance software in the C#/.NET environment using computer vision (OpenCV and EmguCV) and machine learning.

Biologically Inspired Robotics Laboratory
Robot Simulation / June 2015 - Aug 2015 / Case Western Reserve
- Analyzed robotic simulation packages to use in the lab.
- Compiled comprehensive operating instructions for Gazebo.

Mechanics and Control of Living Systems Laboratory
Biomechanics / Dec 2014 - May 2015 / CSU
- Worked on initial research to automate design of simulation-informed prosthetic sockets for lower limb amputees.
- Iterative analysis and MRI-based growth segmentation.

Swagelok
Design Engineer Intern / Summer 2014 / Solon, OH
- Optimized CNC tool chain layout to save $40,000 annually.
- Designed, analyzed, and tested high pressure valve fitting.
- Revised 130 CNC programs and redesigned 500 assembly tools.

Parker Hannifin
Design Engineer Intern / Fall 2013 / Elyria, OH
- Prepared material corrosion reports for sub-sea drilling customers.
- Lab testing and inspection of materials and parts.
- Found appropriate replacement for obsolete products.

Cristal
Reliability Engineer Co-op / Summer 2013 / Ashtabula, OH
- Revised pipe circuit drawings to increase inspection efficiency.
- Inspected equipment and prepared reports for administration.
- Cataloged critical plant equipment in company safety initiative.

SKILLS

Computer: C++, C#, HTML5, CSS, Python, MATLAB, Java, Arduino, Linux, Git, ROS, SolidWorks, Autodesk Inventor, Visual Studio, SAP.

Manufacturing: 3D printing, lathe, mill, CNC coding.

Languages: English, Romanian, French.

PAPERS AND PRESENTATIONS

Honors Thesis / May 2016
Using Tactile Feedback and Gaussian Process Regression in a Dynamic System to Learn New Motions

The Downtown Review, University Journal / Apr 2015
Walking Simulator Mechanism - Developed a device to reproduce the motion and ground reaction forces of the human foot.

The 9th Annual Cleveland State Interdisciplinary Research Conference / Nov 2015
Learning Inverse Dynamics with Gaussian Process Regression

High School Presentation, Fall Visit Day / Oct 2015
Robots, Prosthetics, and Artificial Intelligence

LEADERSHIP

Honors College Student Representative
Mar 2015 - May 2016 / CSU
- Keynote speaker at college dedication ceremony.
- Representative to Board of Trustees and dean search committee.

Engineering College Student Representative
Sept 2015 - May 2016 / CSU
- Leadership Planning Team for design of new engineering building.
- Worked with corporate executives to design sponsored lab.
- Representative to the Ohio Congress at Inter-University Council.

ASME President and Treasurer
Jan 2013 - Jan 2015 / CSU
- Led robotics team in creation of hexapod robot, and catapult team.
- Partnered with local start-up to raise money for robotics project.

Youth Group Committee Secretary
Apr 2010 - May 2014 / Cleveland Romanian Church
- Partook in two humanitarian aid trips to Romanian countryside.
- Planned local and national events and concerts at ethnic church.

HONORS

National Science Foundation Graduate Research Fellowship
Mar 2016
Honorable mention for excellent research proposal.

1st Place Senior Design Capstone Project
May 2016 / CSU
Interdisciplinary team, placed first out of over 60 teams ($1,000).

Outstanding Mechanical Engineering Award
May 2016 / CSU
Highest GPA from mechanical engineering class.

Undergraduate Research Grant
May 2016 / CSU
$1,000 stipend for machine learning and robotics research proposal.

President's Award for Excellence in Diversity
Apr 2015 / CSU
Received in collaboration with the engineering Dean's Diversity Council for taking inclusion and mentorship initiatives.

Honors College Scholarship
Aug 2012 - May 2016 / CSU
Full tuition, four year scholarship ($40,000) based on strong academic record and personal statement.