

# Andrey Kurenkov

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## SKILLS

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Recent graduate with interest in and experience with machine learning, data science, robotics, embedded development.

**Programming Languages:** Python, Java, C, C++, MATLAB/Octave, LaTeX

**Frameworks and Toolkits:** ROS, Sci-Kit Learn, Pandas, Orange, Django, Docker, Android

**Embedded Development:** Jetson TK1, TI C2000, PIC24, Arduino

## EDUCATION

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**Georgia Institute of Technology, Atlanta GA** August 2011 – May 2015

- **Dual major:** B.S. in Electrical Engineering, B.S. in Computer Science with Research Option
- **GPA:** CS 4.0 , Overall 3.88
- **Awards:** Georgia Tech's President's Undergraduate Research Award - Fall 2014 , Spring 2014  
IEEE PES Scholarship Plus - 2012

**GRE:** quantitative 170/170 (98<sup>th</sup> percentile), verbal 168/170 (98<sup>th</sup> percentile), writing 5.0/6.0 (93<sup>rd</sup> percentile)

**MOOC Classes:** Udacity - Data Science Nanodegree, Coursera – Machine Learning, Programming Languages

## EXPERIENCE

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**Software Engineer, Oracle, Santa Clara CA** June 2015 – Present

Working on a small team to build a completely new Python tool for configuration and monitoring of ZFS storage appliances

- Using Docker, Flask, RabbitMQ, and Kafka as part of a new microservice framework the tool is based on.
- Took ownership of the performance statistics service, including the collection workers, storage, CLI, and REST API.
- Designed and implemented developer tools for repeatable deployment and testing of services.

**Research Assistant, Georgia Institute of Technology, Atlanta GA** August 2013 – May 2015

Assisted with and performed research at the Socially Intelligent Machines Lab with Curie, a humanoid robot

- **Published as lead author** (“An Evaluation of GUI and Kinesthetic Teaching Methods for Constrained-Keyframe Skills”, IROS 2015); created ideas, wrote software, and ran a user study with a humanoid robot.
- Implemented ROS Java nodes for DMP, MoveIt, and marker usage. Improved C++ PCL object segmentation code.

**Teaching Assistant, Georgia Institute of Technology, Atlanta GA** May 2012 – May 2015

Taught as a TA for Intro to OOP (Java) for 3 semesters, and then as TA and head TA for Intro to AI (Python) for 4 semesters

**Summer Research Intern, École Polytechnique Fédérale de Lausanne, Lausanne Switzerland** May 2014 – August 2014

Interned at the Microelectronic System Lab to model the lab's memristor technology using VerilogA

- Developed simulations in ADE-L and Matlab to evaluate memristor applications in logic calculation and machine learning.
- Designed a novel CMOS circuit implementation of an abstract neuron model, and evaluated its performance with ADE-L.

**Robotics Institute Summer Scholars Research Intern, Carnegie Mellon University, Pittsburgh PA** June 2013 – August 2013

Interned at the Personal Robotics Lab with HERB, a humanoid robot, to incorporate past experience for better task execution

- Implemented a planning-based task execution framework with extensive data logging for smarter robot behavior.
- Researched, designed, and implemented a machine learning approach for error avoidance during task execution.

## PROJECTS

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**AgriBot Senior Design Project, Team Lead** August 2014 – May 2015

- Integrated hardware components onto a Seeker Mobile Jr rover to create an autonomous farm mapping and spraying robot.
- Implemented and tested real time SLAM on a Jetson TK1 using the OmniMapper ROS service and multiple sensors.

**GT Solar Racing Car Team, Software Lead, Electrical subteam member** August 2011 – May 2015

- Supervised and directed a group that developed high quality telemetry and control software with TI's C2000 Piccolo chips.
- Collaborated with a partner on motor control software as well as others for electrical prototyping, testing, and debugging.