TROY ASTORINO

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EDUCATION

Massachusetts Institute of Technology
Cambridge, MA
Class of 2013

Candidate for Bachelor of Science in Physics with a Focus in Computational Learning and in Aeronautical/Astronautical Engineering with a Concentration in Robotics
Minor in Economics
GPA: 4.5/5.0

Sage Hill School
Newport Coast, CA
Class of 2009

SAT: 780 Math, 800 Reading, 760 Writing
GPA: 4.4/4.0

WORK EXPERIENCE

SpaceX
Los Angeles, CA
Summer 2012 - Present

Developed web service for launching, monitoring, and analyzing Monte Carlo simulations over the mission trajectory. Integrated with the existing simulator and the high performance computing cluster. Built front-end and back-end of the web service, as well as the processing libraries for generating dispersions over various mission parameters.

Robust Robotics Group
CSAIL, MIT
Fall 2011 – Present

Testing algorithms for autonomous localization of a chemical vapor source using measurements from a small electric sensor. Developing software for experimentation on a robotic wheelchair and a quadcopter. Comparing effectiveness of various planning algorithms and models of chemical plume dispersion

Lockheed Martin
King of Prussia, PA
Summer 2011

Developed ground station software for commanding a commercial imagery satellite. Engineered component from initial design through integration and demonstration for the processing and transmitting of GPS Almanac data. Discovered and fixed several critical bugs in the legacy software framework

CSNSM
Orsay, France
Summer 2010

Designed and implemented modifications to ASIC test board for analyzing a new material for gamma ray astronomy in order to improve resolution of measurements. Collected measurements with radioactive source and performed analysis on the data. Wrote automated data analysis program in Java and Matlab. Results presented in poster at 8th INTEGRAL Workshop in Dublin

SKILLS

Clojure, Python, Java, Node.js, C#, C++, HTML, CSS, Backbone.js, Matlab, VHDL
Fluent in French

SELECTED COURSEWORK

Robotics, Computational Cognitive Science, Computational Neuroscience, Statistical Learning Theory, Real Time Systems and Software, Automatic Control, Algorithms, Probabilistic Systems Analysis, Relativity, Quantum Physics, Statistical Mechanics, Dynamics, Thermodynamics, Signal Processing, Econometrics, Finance Theory

ACTIVITIES & LEADERSHIP

MIT Freshman Leadership Program Counselor (2011-2012), Baker Leaders Mentor (2011-2012), Baker House Rooming Chair (2011-2012), MIT Varsity Tennis (2009-2012), Sage Hill Basketball Team Captain (2009), Sage Hill Tennis Team Captain (2008, 2009), Sage Hill Class President (2006-2008)

AWARDS

National Merit Scholarship (2009-2011), AP National Scholar (2009), Sage Hill Scholar Athlete of the Year (2009)

TS/SCI Cleared