

Dylan Hicks

Software Developer. Mathematician. Artist.

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EXPERIENCE

Institute for Telecommunication Sciences (ITS) Boulder, CO — *Software Developer*

September 2015 - PRESENT

Write software for an LTE spectrum sharing model that uses C++, Rust, and Python. Deconstruct and refactor legacy propagation models. Develop services, using Flask and Docker, for terrain extraction and modeling.

ITS Boulder, CO — *Engineering Intern*

June 2014 - September 2015

Designed and developed software for various mathematical models using C++ and Python. Prepared, conducted and analyzed subjective video quality experiments. Ran smoke tests using Selenium.

EDUCATION

Metropolitan State University of Denver Denver, CO — Bachelor of Science in *Applied Mathematics*

August 2010 - May 2015

4.0 Major GPA, 3.46 Overall GPA.

PROJECTS

SCOS Sensor API — *Spectrum Monitoring Service/Server*

This software provides an API for spectrum monitoring sensors; which are deployed using Puppet and Docker. After deployment, clients can then start making requests for measurement actions freely. This will effectively lower the cost of measurement campaigns and sensor upkeep.

AELTE — *Modelling Software*

This software models an LTE network of user electronics, and their interference on a victim device. It is used to address the issue of cellular interference on weather detection systems.

Terrain API/Server — *Geodesic Software/Server*

This is a RESTful API for extracting terrain features from raster and vector data files.

LANGUAGES

Proficient: Python, Rust, C++, C

Novice: Javascript, Go, Java, C#

Certifications

Certified Scrum Product Owner
from the Scrum Alliance.

SKILLS

Knowledge of data structures, ADTs, architecture, bitwise operations, TDD, BDD, and property based testing.

Familiar with common tools such as GDB, LLDB, Cmake, Make, Jenkins, Puppet, and Docker.

Mathematical competence in calculus, linear algebra, probability and statistics, ordinary and partial differential equations, real analysis, and numerical analysis.

Project management skills with Agile and Jira.

