Berkeley B. Almand-Hunter

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Skills

LANGUAGES: Python, MATLAB, HTML, CSS, LaTeX, SQL*, JavaScript*

TOOLS: NumPy, SciPy, pandas, scikit-learn, matplotlib, Bootstrap, jQuery*, D3.js*, Flask*
*some experience

Experience

FELLOW, *Insight Data Science, Palo Alto, CA* — 2015

- Created *Ski in Solitude*, an app that predicts crowds at ski resorts using data from the Colorado Department of Transportation and snowforecast.com
- Developed www.skiinsolitude.com using Bootstrap, Highcharts, Flask, AWS and Gunicorn
- Performed data analysis in Python using NumPy, SciPy, pandas, scikit-learn, and matplotlib
- Predicted daily crowds and runs open using feature engineering, linear regression and random forests

RESEARCH ASSISTANT, *Department of Mechanical Engineering, Univ. of Colorado Boulder, CO* — 2010 – 2015

- Developed instruments that accurately measure ozone deposition at < 10 % of the cost of commercially available monitors
- Improved existing low-cost sensor calibration models by using Scikit-learn to perform regressions via linear regression, feature transformation, feature extraction with custom error functions, random forests, and support vector machines
- Reduced underprediction of high ozone values by an average of 42% in sensor measurements
- Supervised and mentored one postgraduate and two undergraduate student researchers
- Authored peer-reviewed publications in scientific journals and presented at five conferences
- Received five grants and the department's *Outstanding Service Award* and *Best Demonstration Award*

NSF STEM FELLOW IN K-12 EDUCATION, *Univ. of Colorado, Boulder, CO* — 2011 - 2014

- Spent two days each week teaching complex engineering concepts to K-12 students
- Created new age-appropriate engineering curriculum for students on a monthly basis
- Published peer-reviewed hands-on lessons in the Teach Engineering Digital Library

RESEARCH ASSISTANT, *Department of Mech. Engineering, Colorado School of Mines, Golden, CO* — 2008-2010

- Developed ceramic microchannel heat exchangers for high-temperature energy applications
- Lectured a class of 100 students on heat transfer

TECHNICAL SALES, *AC Systems, Denver, CO* — 2007-2008

- Designed custom environmental control and power distribution systems for data centers

Education

PH.D., MECHANICAL ENGINEERING, *University of Colorado, Boulder, CO* — Dec. 2015

M.S., MECHANICAL ENGINEERING, *Colorado School of Mines, Golden, CO* — May 2010

B.S., MECHANICAL ENGINEERING, *Colorado School of Mines, Golden, CO* — May 2007

- McBride Honors Program in Public Affairs