
Education

- Awarded **MSc Mechanical Engineering**, *Columbia University*.
2014 Research focus: Nanoscale carbon materials for aerospace
2 conference presentations, 1 paper submission, 1 Provisional Patent
- Awarded **Mathematics/BSc Mechanical Engineering**, *Columbia University*.
2012 Double major in Math and MechE

Experience

- '14— **Data Scientist**, *Collective Media*, NYC.
- Ongoing
 - Ad-tech data science in midtown Manhattan
 - Modeling, prediction, analytics and more in R, Python, SQL, and on Hadoop
- '11—'14 **Data Engineer/Grad Student**, *Tribo Energy Lab*, Columbia University.
 - Python/Pandas/NumPy/Matplotlib on Ubuntu for computational research in graphene
 - Led a team of 3 engineers to the fastest provisional patent in Lab history (18 weeks)

Internships

- Summer **Data Analytics Engineer**, *Tyco Electronics*, Hershey, PA.
2012
 - Automated hardware design and industrial measurement tasks using Python 2.7
 - My code stopped \$370,000 of defective hardware from shipment to the client (Cisco)
- Summer **Project Manager—Intern**, *Traylor Heavy Civil, Underground Division*, NYC.
2011
 - Managed a 14-week, \$400,000 subproject for tunnel boring machine topside support
 - Saved \$285,000 by reducing monthly waste of spare parts from 1.2% of inventory to .01%
- Summers **Superhard Materials Engineer—Intern**, *Argonne National Lab*, Chicago.
2009 & 2010
 - Led a team of 4 junior engineers developing diamond-like-carbons for jet turbines
 - Published results of study at international ceramic materials conference
- Summer **Quant Marketing—Intern**, *PrintingForLess.com*, Livingston, Montana.
2008
 - Wrote ugly JavaScript
 - A/B tested very badly

Skills

- R Intermediate: 2 years experience, mostly production code, data viz in ggplot
- Python Light intermediate: 2 years experience in 2.7, mostly with Pandas; some Django
- Hadoop 1 year experience with Hive, Oozie, Impala, and more
- SQL 2 years experience with Postgres, Netezza, Hive, and Impala
- Java & C++ Beginner: 1 semester experience each
- Mathematica Intermediate: 2 years experience. Mostly scientific work
- Git 2 years experience
- ML Mostly in R with glmnet, some scikit-learn

Achievements & Awards

- April 2013 **NSF Graduate Research Fellowship**: Honorable Mention
- Feb. 2013 **US Provisional Patent**: Lightweight carbon composite material for aerospace
- 2010 & 2011 **R. Simperman Endowed Scholarship**: 2-year consecutive winner (A competitive scholarship for undergraduates in Mathematics and the Sciences)
- 2009 & 2010 **MCM International Mathematical Contest**: 2-year consecutive Meritorious Winner (an international mathematical contest with thousands of entrants)

Personal

- CU Ski Team Team qualified for USCSA Nationals in '12 and '13 in slalom and giant slalom
- Interests Squash, Basketball, Thai food, typography & design
- Spanish Conversational. Spent a summer in Madrid