DAVID NEWCOMB

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PRINCIPAL DATA SCIENTIST   LOTADATA
- Primary Tools: **R, Python, Java, Elasticsearch, MSSQL, d3, HTML & Markdown**   Fall 2016 - Now
- Applied and wrote algorithms: Clustering, Topological Analysis, Markov Chains
- Analyzed, cleaned, classified, aggregated & built data structures for raw datasets (1 TB database)
- Created data visualizations and maintained live monitoring dashboards
- Wrote, illustrated and published data journalism articles & filed patents

DATA SCIENTIST   CARBON LIGHTHOUSE
- Primary Tools: **R, Python & Excel**   Summer 2015
- Built a Measurement & Verification tool to gauge energy saving impact of efficiency projects
- Predicted energy usage w/ time series analysis, regression- incorporated **weather (NOAA API)**
- Checked models using bootstrapping (autocorrelation) & cross validation (over-fitting)
- Presented final results numerically and graphically with confidence intervals

OPERATIONS INTERN   SAMSUNG
- Primary Tools: **R & Excel**   Summer 2014
- Performed Multiple Correspondence Analysis on various features of 30+ messaging apps
- Ranked, evaluated and forecast success of apps & recommended strategies
- Met with and assessed several software start-ups for partnerships with Samsung

ENERGY & FINANCE INTERN   TXU ENERGY
- Primary Tools: **Excel**   Summer 2013
- Predicted costs and revenue of electricity rate plan switches - built a forecasting tool
- Predicted natural gas prices & expected consumer energy use
- Designed web layouts for solar and wind energy campaigns with partner SolarCity

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M.S.   MANAGEMENT SCIENCE & ENGINEERING   STANFORD
- **Focus: ENERGY & ENVIRONMENT**   2014 – 2015
- **Energy:** Transition to Sustainable Energy, Energy & Environmental Policy Analysis
  Systems, Greener Energy Processes, Energy Resources
- **Math:** Risk Analysis, Optimization of Uncertainty, Unsupervised Machine Learning,
  Independent Research: Factorial Hidden Markov Models & Residential Electricity

B.S.   MATHEMATICAL & COMPUTATIONAL SCIENCE   STANFORD
- **Focus: ENGINEERING**   2010 – 2014
- **Energy:** Energy and the Environment, Earth Systems, Renewable Energy Sources,
  Chemical Principles, Material Science: Nanotechnology
- **Math:** Applied Statistics, Statistical Inference, Stochastic Modeling, Multivariable Calculus,
  Matrix Theory, ODE's, Probability Theory, Linear & Non-linear Optimization

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LANGUAGES:

●●●●●●● **R, Python, English**
●●●●●○ **Java, C++, C, Elastic, Spanish**
●●●●○○ **d3, MSSQL, Ruby, HTML, French**

INTERESTS:

●●●●●○ Renewables, Poetry, Basketball
●●●●○○ Traveling, Hikes, Data Journalism
●●●●○○ Ukulele, Tennis, Music Festivals

PROJECTS: NBA paths, Traveling Salesman, Tree of Trees, Poem Wheels (probabilistic models & data visualization)
Wrote, illustrated & self-published a book of poetry (*In a Word*), built a 36"x30"x24" oak TV stand