

# Andrew Knox – Data Engineer

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## Professional Profile

- **Data** – over 9 years experience bridging the gap between the vagaries of real world data and the changing requirements of data modeling, especially creating repeatable and production systems
- **Development** – adept at agile process, database architecture, map/reduce, OOP and some functional, scripting/automation, unit tests, web scraping, API, machine learning
- **Management** – experienced organizing small teams of developers, analysts, modelers and account professionals in both product and services roles

## Skills

- Core Languages – Python, SQL, bash, SAS
- Key Auxiliary Skills – git, JIRA, AWS, Tableau
- Some Other Languages – R, Java, Pentaho, JavaScript, C++, TI-BASIC, G

## Relevant Work Experience

### Altman Vilandrie & Company – truPLAN

ETL Engineer | New York | June 2015 – Present

- Developed an automated ETL stack to replace manual data validation, turning projects that used to take several analysts months into projects that took one analyst a few weeks
- Designed modular config based data processing pipeline with end user accessible GUI elements
- Created Tableau based visualization reports and OLAP for data modelers on slowly changing dimensions, allowing quick testing of new models using “what-if” with historical projected data
- Built a variety of web scrapers and data specifications to mitigate data quality issues with third party data vendors and reduce manual data collection (the analysts least favorite job)
- Mentored analysts and data modelers on scripting and collaboration to increase user acceptance

### BAE Systems Applied Intelligence – NetReveal Professional Services

Technical Lead | Miami, New York | May 2013 – May 2015

Senior Data Analytics Consultant | Boston, Miami | January 2013 – May 2013

Data Analytics Consultant | Boston, Washington DC | October 2011 – December 2012

- Managed a technical project and customized a social network analysis fraud detection product used by hundreds of fraud investigators at a major U.S. auto insurer
- Directly handled the daily task allocation and prioritization for up to 6 analysts and developers
- Reduced daily build time by hours to meet SLA by identifying and eliminating chokepoints
- Designed new data validation/parsing tools to interact with problematic legacy systems
- Coordinated with a global team on a weekly basis: India, U.K., East/West Coast U.S.

### National Superconducting Cyclotron Laboratory – Digital Data Acquisition System

#### University of Massachusetts Lowell – Heavy Ion Spectroscopic Investigation

Undergraduate Research Assistant | Lowell, MA; East Lansing, MI | May 2005 – August 2007

- Created software to assist analysis for two nuclear structure physics research groups
- Worked with research hardware and creating interfaces to record and visualize custom data format

## Education

- Bachelor of Science in Physics, Cum Laude. University of Massachusetts Lowell 2010