

# Jeffrey Tratner

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## Project / Open Source Work

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### Pandas – Maintainer / Core Developer

June 2013-Present (Contributor), August 2013-Present (Maintainer)

- Contribute to and help maintain Pandas, a Python data analysis library emphasizing performance and ease of use with a large existing codebase (~130K lines of code).
- Regularly push code, including work on simplifying data I/O wrappers, refactoring arithmetic methods, and improving test coverage and test utilities.
- Run code reviews, address bug reports, and help new contributors along with the rest of the core team.
- Currently working on optimizing the handling of categorical data and adding a memory-efficient default index.

### Predictive Model for Sales Forecasting, National Analysts Worldwide

Philadelphia, PA - 2013

- Designed and led \$40,000 project to improve sales forecasting for client, a consumer product company.
- Developed multiple models employing both machine learning techniques and simple regressions to predict purchase behavior based on survey responses and previous purchase behavior.
- Architected database schema to effectively merge ~80,000 customer ratings with client's sales records.
- Performed analysis and visualization in Python, leading to model used for all of client's later sales forecasting.

### Course Recommendation System, Bryn Mawr College (proposed)

Bryn Mawr, PA - 2012

- Designed and presented a course recommendation system for Bryn Mawr College over 3 month period.
- Published and documented SQL graph structure implementation (graphalchemy) to represent connections.
- Prototyped system using 4 years of course records via Flask, SQLAlchemy, D3 and graphalchemy.

### Other Projects:

- **GeoPandas (2013):** helped project maintainers navigate Pandas internals and improve public API.
- **Geocoding/GIS wrappers (2012)** for GeoDjango & Rails: very simple API for geocoding and querying on address.
- **Google App Engine wiki** - built as final project for online course using GAE and memcached.

## Relevant Work Experience

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### National Analysts Worldwide, R.A. in Project Management

Philadelphia, PA - 2012-Present

- Manage project teams (2-5 people) and translate client problems into effective market research studies.
- Draft surveys, develop database schema, analyze results and synthesize reports to address client needs.
- Led successful effort to move company to HTML invitations, leading to >10% increase in response rate.
- Ran and analyzed successful A/B test of email subject lines to better target key respondents.

### Village Manager, Data Analyst

Philadelphia, PA - 2011-2012

- Collected and compiled data on a Philadelphia neighborhood for an economic analysis
- Maintained and updated cloud-based database of records in content management system

### Brown University Computing and Information Services, Help Desk Consultant

Providence, RI - 2010-2011

- Resolved client technical issues in a friendly and efficient manner.
- Analyzed and compiled customer satisfaction surveys for presentation.

## Technical Skills

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- Fluent in **Python** and use **git** on a regular basis.
- Experience with **Cython** and **JavaScript**.
- Used C, OCaml, Scheme, Octave and Matlab for coursework and have played with Go.

## Education

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### Brown University, Bachelor's Degree in Biology

Providence, RI - 2006-2011

- Coursework spanning quantitative science, math, literature and introductory computer science.

**Online courses** on machine learning, data analysis, software engineering and debugging.