

# Joe Wlos

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## PROFESSIONAL EXPERIENCE

**Hawkfish:** *Business Intelligence Engineer* February 2020 – Present

- Startup building state-of-the-art data infrastructure for Democratic Party candidates and causes
- Creating dashboards and data analysis tools for political advertising pre-testing and performance

**Cello Capital Management:** *Consultant* December 2019 – January 2020

- Refactored Python scripts and SQL stored procedures to achieve an 80% reduction in the loading time for fixed income portfolio risk analytics in Power BI
- Improved logic for estimating prepayment penalty cashflows for Ginnie Mae mortgage-backed securities

**Dwight Securities Management:** *Associate* June 2017 – October 2019

- Fixed income hedge fund with investments in agency CMBS and multifamily bridge loans
- Built property valuation and cashflow models in Python and VBA to price bonds and assess risk
- Created dashboards for visualizing and searching multifamily and nursing facility datasets
- Used the Python microframework Flask to build a web portal for reviewing underwriting documents

**JOOR:** *Data Analyst* June 2016 – May 2017

- Developed histogram of oriented gradients feature descriptors to detect clothing categories in images
- Produced visualizations of dominant seasonal colors using k-means clustering of pixels in product photos

**Morningstar:** *Data Analyst, Reference Data* July 2015 – May 2016

- Developed Python scripts to map identifiers to derivatives using Bloomberg's Open FIGI API
- Automated the retrieval and visualization of sector data for the weekly equity research newsletter

## VOLUNTEER EXPERIENCE

**Watchlist on Children and Armed Conflict:** *Delta.NYC Volunteer* November 2016

- Civic Hall Labs' *pro bono* program to operate and develop tech solutions for public policy organizations

**Presevent:** *Co-Founder* May 2015 – June 2016

- Scraped location, time, and cost data for over 3,000 campaign events for an Election 2016 iOS app

## EDUCATION

**Grinnell College:** *B.A. in Political Science with Honors* Class of 2015

- Thesis applying historical development of *habeas corpus* to extrajudicial detentions at Guantánamo Bay
- Winner of 2015 Baumann Essay Prize for research examining the effective regulation of net neutrality

## SKILLS

### Databases

- Amazon DynamoDB
- PostgreSQL
- SQLAlchemy

### Data Analysis

- Pandas & NumPy
- Tensorflow
- VBA

### Data Visualization

- D3.js
- Dash by Plotly
- Power BI

### Web Development

- Flask & Django
- JavaScript
- PHP