

## Zach Flynn's Curriculum Vitae

### Contact

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Github — <https://github.com/flynnzac>

### Education

#### PhD in Economics

- The University of Wisconsin - Madison (2012-2017)
- Fields: Industrial Organization and Econometrics.
- Dissertation title: Measuring productivity and market power.
- Committee: Ken Hendricks, Alan Sorensen, Amit Gandhi, Jack Porter

#### BS in Economics and Mathematics

- Tulane University (2008-2012)

### Employment

#### Afiniti

- Research Scientist, Research and Development, Washington, DC.
- July 1, 2018 to present.

#### Amazon

- Economist, Amazon Prime, Seattle, WA.
- May 1, 2017 to June 30, 2018
- Designed, developed, and used a discrete choice demand model to help make pricing and product design decisions that was used in a wide variety of applications at the company. For example, it was used
  - to inform major Prime pricing decisions;
  - to estimate the effect of modifying Prime benefits on Prime membership;
  - to estimate the effect of *potential* video content investment decisions on Prime membership.
- Developed a censored quantile regression approach to model what factors make customers buy a product or sign up for Prime sooner.
- Worked on many smaller projects, including analysis of which cities had the greatest opportunity size for advertising Prime during NFL games and which lower-income markets had the greatest opportunity size for advertising a lower-priced Prime for lower-income customers.
- Promoted to Economist II in April 2018.

#### University of Wisconsin - Madison, Economics Department

- Research Assistant to [Jesse Gregory](#)
  - Fall 2014 to August 2016
  - Implemented dynamic discrete choice models to understand housing decision problems for two projects: one on post-Katrina New Orleans and the other on the national housing market.
  - Used Condor at the CHTC at the University of Wisconsin Madison to estimate the large scale dynamic discrete choice models.
- Teaching Assistant
  - Introduction to Macroeconomics (Spring 2013, Spring 2014)
  - Economic Statistics (Fall 2013)

- Introduction to Microeconomics (Fall 2012)

## **Research**

The latest versions of all papers are also linked at my website: <http://zflynn.com>. I have other works in progress, but I only show the papers with public or nearly-public drafts available below.

### **Working Papers**

- [Identifying productivity when it is a choice](#)
- [The substitution and scale effect of carbon taxation](#)
- Identifying markups from production data (working title; with Amit Gandhi and James Traina)
- [Partial identification of production functions with flexible inputs \(with Amit Gandhi\)](#)
- [Inference on functions of parameters partially identified by the intersection of continuous linear inequalities](#)

### **Published Papers**

- Parametric Inference Using Structural Breaks (with Leandro Magnusson)

### **Short writing**

- [Estimating Logistic Regressions Using Two Stage Least Squares](#)

## **Awards and Fellowships**

- Alice S. Gengler Fellowship – University of Wisconsin Madison – awarded May 2016
- Culbertson Prize for Top Field Paper – University of Wisconsin Madison – awarded May 2015
- Graduate Research Fellowship – University of Wisconsin Madison – awarded May 2015

## **Programming languages and computing**

Environments and programs: AWS, Linux, some Spark knowledge, Grafana

Programming languages: R, SQL (MySQL, Oracle, Redshift, PostgreSQL, etc), SAS, InfluxDB, Fortran, Matlab/Octave, C/C++, Perl, Python, Stata, Julia, Shell Scripting (for Linux using the bash shell), various Lisps and Schemes (especially Emacs Lisp and Guile Scheme).

For some examples of projects I have done/jobs where I used the above languages regularly:

- R – All of my academic papers were mostly written in R (and Fortran). The censored quantile regression project at Amazon mentioned above was done in R as well. I use it frequently for projects at Afiniti.
- Stata – Some of my RA work at Wisconsin was in Stata, the paper with Lenadro Magnusson developed a Stata package, and I used Stata extensively at Amazon for many projects.
- C/C++ – I have used C++ for projects at Afiniti and I have written C code for open source projects.
- RA work with Jesse Gregory used both Matlab and Fortran.
- I used SQL extensively (basically, daily) at both Afiniti and Amazon.
- I use Perl extensively in personal scripts, and I used it to automate many tasks at Amazon.
- I learned SAS in college and did some part time "consulting" in SAS while in grad school to help pay for... food... in the summers when there was no TA salary coming in (I helped people write programs to get results they needed for their thesis for 20 dollars an hour).