

# Craig A. Chikis

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## Education

### The Johns Hopkins University

Baltimore, MD

- GPA: 3.87/4.00 General, Departmental Honors; Tau Beta Pi; GRE 170V; 168Q; 6W
- Majors: Chemical/Biomolecular Engineering and Economics; Minor: Mathematics

May 2019

## Relevant Experience

### Board of Governors of the Federal Reserve System

Washington, D.C.

#### Senior Research Assistant

June 2019-present

- “Interest rates, innovation, and creative destruction” by Goldberg, López-Salido, and Chikis
  - We nest several Schumpeterian DGE models and study the competition channel of real interest rates
  - Authored entire code base (Matlab and Julia); responsible for figures and tables; responsible for documentation and replicability
  - Led model calibration effort and policy exercises (nonlinear programming; see “Skills”)
  - Presented work to Board research seminar; paper invited to be presented at FRB NY, Chicago, and San Francisco; Einaudi; and accepted for the FR System Macro Conference (Discussant: Martí Mestieri)
- Wrote and deployed RShiny app that extended monetary policy shock series of Miranda-Agrippino and Ricco (2019) using Board proprietary data
- Utilized regulatory FINRA TRACE, Mergent FISD, Lehman-Warga, and ML U.S. corporate master file to create CUSIP-level panel of all U.S. corporates intermediated by primary dealers from 2000-present in order to measure market liquidity and 13(3) efficacy
- Migrated several legacy productions from SAS to R and Python
- Lead RA for division-wide Tealbook and Summary of Economic Projections, June 2020 FOMC; coordinated section Tealbook contribution for various rounds
- Created exhibits and fact-checked for various economist presentations to FOMC, officer principals, and FSOC
- Created and presented financial conditions index based on behavioral finance paper by Barberis et al. (2016)
- Utilized NLP/sentiment analysis of Twitter data to build nontraditional monetary policy shock measures
- Volunteer with FedEd; travel to high schools in DMV area and lead economics workshops; perform outreach
- As member of MA, awarded Spring 2020 Division Director’s Award for Excellence

### Unilever

Englewood Cliffs, NJ

#### R&D Intern

June 2017-August 2017 and June 2018-August 2018

- Implemented cost-saving formula modification for Hellmann’s Vegan Mayonnaise Dressing (\$100K in savings)
- Utilized proprietary modeling platforms to predict microbiological stability & consumer sensory perception
  - Worked on extending model’s consumer sensory predictions to consumer preference data
- Leveraged new starch technologies to improve production line efficiency
- Developed nonlinear predictive models for lather performance of cleansing products (Dove, Axe, TREsemme)
- Created and executed full factorial design of experiment to link consumer preference to lather performance

### The Johns Hopkins University

Baltimore, MD

#### Student-Athlete Tutor and PILOT Leader for Economics and Chemistry

September 2016-May 2019

#### TA for Physics I/II

September 2017-September 2018

#### Dr. Laurence Ball, Research Assistant

November 2017-May 2019

- Performed regression analysis investigating hysteresis in post-recessionary labor markets
- Implemented Hodrick-Prescott filtering techniques estimating NAIRU in OECD economies
- Implemented various data visualization techniques of real time-unemployment rates; historical corporate debt market yields
- Assisted in proofreading *The Fed and Lehman Brothers: Setting the Record Straight on a Financial Disaster*

## Skills

- **Programming:** **Git**, **Julia**, **Matlab**; **Python** (NumPy, Pandas, SciKit Learn, NLTK); **R** (tidyverse, tidymodels, tidytext, data.table, shiny, reticulate, R Markdown, quantmod, parallel); **SQL** (Postgres); **Stata**; **NLOPT** (Matlab, Python, R, and Julia APIs)
- **Technical:** Dynamic general equilibrium solution methods; Machine learning; Data visualization; nonlinear programming (optimization); Designs of experiment