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
    o We nest several Schumpeterian DGE models and study the competition channel of real interest rates
    o Authored entire code base (Matlab and Julia); responsible for figures and tables; responsible for documentation and replicability
    o Led model calibration effort and policy exercises (nonlinear programming; see "Skills")
    o Collaborated closely with co-authors; effective communication and dedication to craft
    o 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; series made available to Board researchers
- Collaborated in modernization of section production infrastructure (migration of SAS to R and Python)
- Coordinated division-wide exhibits process and SEP fact-checking for June 2020 FOMC; led section exhibits contribution for various FOMC rounds
- Created exhibits and fact-checked for various economist presentations to FOMC, officer principals, and FSOC
- Leveraged recent work on behavioral finance to create a time series of market valuations; work presented to section colleagues
- Natural language processing 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
    o 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; Bayesian estimation; Data visualization; nonlinear programming (optimization); Designs of experiment
- *Interpersonal*: Works well in teams; outcome-oriented individual; effective communicator