

# Cameron Fen

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## Education:

**University of Michigan**, Ann Arbor, MI  
**Brandeis University**, Waltham, MA

August 2018-Present  
Sep 2012-May 2015

## Research Interests:

Bayesian Econometrics and Machine Learning, Macroeconomics, Time Series Econometrics, Deep Learning, Optimal Transport

## Research Experience:

**Summer Research Assistant**, University of Michigan 2019, 2020  
**Research Assistant**, Philadelphia Federal Reserve 2016-2018

## Teaching Experience:

**Teaching Assistant**, Intermediate Macroeconomics Spring 2014  
**Teaching Assistant**, Economics of Europe Fall 2019, 2020  
**Teaching Assistant**, Introductory Microeconomics Spring 2020  
**Teaching Assistant**, Capitalisms Spring 2021

## Working Papers:

**Forecasting GDP with Recurrent Neural Networks** with Samir Undavia

We introduce a neural network model along with a data augmentation scheme that consistently outperforms state-of-the-art models. The model provides better forecasts than AR(2), and a dynamic stochastic general equilibrium model over all horizons, a factor model on horizons longer than 2 periods ahead, and the median forecast of the Survey of Professional Forecasters at 5 quarters ahead. Forecasts over different time windows, model specifications, along with Monte Carlo simulation suggests the performance of our model is robust, reproducible, and does not depend significantly on the randomness of the initialization, reasonable changes in architecture, and numerical optimization.

## Works in Progress:

“Variational Inference and Bayesian DSGE Estimation”  
“An Optimal Transport Algorithm for Arbitrary Distributions and Cost Functions”  
“Data Imputation with Transformers” with Zhengyuan Cui

## Skills:

- Python: Scrapy/Beautiful Soup(Web Scraping), Tensorflow/PyTorch(Deep Learning); Matlab; SQL;Java: Hadoop (Distributed Computing); C++; Stata

## Seminars:

2020: European Winter Meeting of the Econometric Society  
2021: Midwest Economics Association Annual Conference