# Linh Nguyen

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#### Introduction

Economics Ph.D. with 2+ years of industry experience in causal inference and experiment design. Passionate about applying econometrics techniques to uncover sources of growth and profitability, inform product roadmaps, and drive impactful business decisions.

### **Professional Experience**

Uber Technologies, San Francisco, CA

Applied Scientist II 07/2021 - present

#### Consumer Incentives Team

- Long-term Effects of Online Food Delivery Promos
  - Led an end-to-end process of designing, launching, and analyzing the first experiment that measures effects of UberEats Promos on users' long-term behaviors. This experiment lasted 12 weeks, involved 8 million users per week, and collected 27GB of data. Results informed budget reallocation of cross-platform pricing and incentive levers, and provided insights to re-architect the objective function.
  - Drove weekly discussions with a 5-member cross-functional team of backend engineers, product managers, and product ops to align on timeline, remove blockers, and address budget concerns throughout 12 weeks of experiment.
  - o Created a process to set up nested experiments with user randomization at multiple granularity levels.
  - Leveraged causal inference methods (instrumental variables and surrogate index) to connect outcomes at various time horizons and align short-term optimization strategy with long-term business goals.
- User Targeting Model Evaluation
  - Designed and analyzed a series of experiments that compared a new targeting model against the status quo in the US and Europe. Results allowed scaling the new model globally and unlocked 0.5% total revenue growth.
  - o Predicted cost per user for new promos in 11 new markets to allocate budget across multiple experiments.
  - Wrote a technical document explaining how to conduct spend-neutral analysis step-by-step that ensures fair comparisons of various targeting models. Framework is currently used in model evaluation analyses in the team.

#### Courier Structural Pricing Team

- Couriers' Supply Hour Elasticity
  - Developed a hybrid framework involving Tobit model and manual computation to estimate supply hour elasticity when data on supply hours are highly skewed.
  - Estimated couriers' supply hour elasticity with data from continuous experiments and the above framework. Results showed minimal elasticity to existing pricing levers and informed product roadmap to move away from status quo.

## **Research Experience**

Duke University, Department of Economics, Durham, NC

08/2015 - 05/2021

- "Wages, Work Hours, and Work Effort: How Tax Rates Affect Taxpayers' Occupational Choice"
  - Leveraged natural experiments and difference-in-differences models to identify causal effects of taxes.
  - Used control functions and instrumental variables to correct for selection bias.

"Income Tax Progressivity and Graduate School Enrollment"

- Estimated logit models of schooling decisions, controlling for demographics, state & year fixed effects.
- Conducted counterfactual analyses of graduate school enrollment for various tax progressivity levels.

#### Northwestern University, Department of Economics, Evanston, IL

09/2014 - 06/2015

• Estimated Poisson models to determine effects of sales tax on product variety.

#### Education

Duke University, Durham, NC

05/2021

• PhD in Economics, Certificate of College Teaching; GPA: 3.93/4.0

Agnes Scott College, Decatur, GA

05/2014

• Bachelor of Arts in Mathematics and Economics; GPA: 4.0/4.0, Summa Cum Laude

#### Skills

Computer skills: Python, SQL, Stata, LaTeX, Excel. Languages: English (fluent), Vietnamese (native)