

## Experience

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| <b>Federal Housing Finance Agency</b>  | 05/2024 - 02/2025                    |
| Pathways Program Intern (Exam & Finance)   | EL-0599-4                            |
| <ul style="list-style-type: none"><li>• Built a method using SAS that incorporated COVID-19 loan forbearance outcomes to increase the modeling power of the <a href="#">FHFA Mortgage Analytics Platform (FMAP)</a> for stress-testing and assessing risk exposure of millions of loans in Fannie Mae's and Freddie Mac's single-family mortgage portfolios.</li><li>• Identified time-varying sources of endogeneity and bias in the econometric modeling design of FMAP to improve FMAP's credit loss predictions for informing capital policy.</li></ul>  |                                      |
| <b>University of Oslo</b> , Researcher   | 11/2022 - 12/2023                    |
| <ul style="list-style-type: none"><li>• Analyzed how limited firm access to imports and the structure of supply chain networks affect firm market power and pass-on price effects in a developing African country.</li><li>• Transformed a panel dataset with millions of monthly firm sales and prices into sparse matrices to reduce computation time by several folds for GMM estimation results using NumPy and pandas in Python.</li><li>• Solved an optimization problem using Quasi-Newton methods and the Python SciPy package to implement a GMM estimation of a structural model of firm market power.</li></ul>   |                                      |
| <b>University of Washington</b> , Instructor   | 12/2022 - 03/2023, 03/2022 - 06/2022 |
| <ul style="list-style-type: none"><li>• Independently taught Intermediate Microeconomics, introducing economics, business, finance, and other students to fundamental microeconomic models and theories.</li><li>• Designed and administered a course syllabus, lectures, and exams to 30-40 undergraduates.</li></ul>   |                                      |
| <b>NERA Economic Consulting</b> , Senior Analyst   | 06/2021 - 06/2022                    |
| <ul style="list-style-type: none"><li>• Consulted for consumer finance litigation by drafting and auditing expert reports.</li><li>• Illustrated to regulators using Excel and Stata charts the process of a national U.S. bank's interest rate adjustments for calculating refunds on thousands of credit card accounts.</li><li>• Explicated to regulators the assumptions made in a national U.S. bank's refund calculations for credit card accounts to mitigate litigation risk.</li><li>• Managed and trained other researchers in data visualization, Stata, and effective documentation.</li></ul>   |                                      |
| <b>NERA Economic Consulting</b> , Analyst  | 02/2017 - 06/2019                    |
| <ul style="list-style-type: none"><li>• Consulted for intellectual property (IP), antitrust, and consumer finance litigation by drafting and auditing reports submitted as expert testimony.</li><li>• Cleaned and analyzed datasets with millions of transactions to demonstrate that a multi-million dollar merger complied with the U.S. Department of Justice's standards for fair competition, allowing it to pass.</li><li>• Estimated patent valuation and damages worth hundreds of millions of dollars for alleged IP infringement.</li><li>• Calculated restitution using consumer account overdraft data and ensured restitution methodology complied with federal regulations for a case filed by the CFPB and the OCC against a national U.S. bank.</li></ul> |                                      |

## Skills

- **Coding:** Python (NumPy, pandas, matplotlib, geopandas, SciPy); SQL; Stata; SAS
- **Tools:** Latex; Microsoft Excel, PowerPoint, Word; Tableau
- **Data Analysis and Modeling:** data validation, cleaning, manipulation, visualization, summary statistics; application, interpretation, and validation of regression models (OLS, logistic, quantile, 2SLS, difference-in-differences); instrumental variables; GMM; causal inference

## Education

### University of Washington, Seattle

Seattle, WA

Ph.D. in Economics, specialized in applied microeconomics  
and causal inference

Expected Graduation: 12/2025

M.A. in Economics

### University of California, Berkeley

Berkeley, CA

B.A. in Economics, *Departmental Honors*

## Expected Research Publications

- *Housing Affordability, Supply, and Spatial Misallocation* with Eric S. Wang (University of Washington), presented at the Western Economic Association International 100th Conference (June 2025)
  - Evaluates a City of Seattle tax incentive program for rental housing developers to build inclusionary zoning (IZ) housing
  - Provides evidence for the City's program trade-off between affordability and geographic coverage
  - Finds highly heterogeneous effects of IZ on nearby rents by tract median income, using a novel detailed micro-dataset on Craigslist rental listings
  - Modeling Methods: Spatial difference-in-differences, causal inference
  - Coding Skills: Python (pandas, matplotlib, geopandas, SciPy), Stata
  - Working paper: [https://econ.washington.edu/sites/econ/files/documents/research/NgWang\\_MFTE\\_Paper.pdf](https://econ.washington.edu/sites/econ/files/documents/research/NgWang_MFTE_Paper.pdf)
- *To Lease in the Short or Long Term? Homeowners' Sharing Economy Exit Decisions Amid COVID-19 Uncertainty*, presented at the Western Economic Association International 99th Conference (June 2024)
  - Studies investment property owners' substitution between Airbnb and the residential rental housing supply for investment using COVID-19 pandemic as a natural experiment.
  - Finds a policy implication that municipalities should impose stricter regulations on short-term vacation rentals to address the upward pressure of the supply of Airbnb rentals on residential housing rents.
  - Modeling Methods: Regression models (OLS, 2SLS, difference-in-differences with a continuous treatment), instrumental variables, causal inference
  - Coding Skills: Python (pandas, matplotlib), Stata
  - Working paper: [https://econ.washington.edu/sites/econ/files/documents/job-papers/20241122\\_Ng\\_JMP.pdf](https://econ.washington.edu/sites/econ/files/documents/job-papers/20241122_Ng_JMP.pdf)

## References

### Xiaoling (Ling Ling) L. Ang

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### Yuya Takahashi

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### Xiaoqiang (Charles) Hu

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Federal Housing Finance Agency  
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### Alan Griffith

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