# Fiona Sijie Feng

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| **Current** | Job Market Candidate, NYU Stern Economics |

**PhD Committee**

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| Petra Moser (Chair, *Economics, NYU Stern*) | pmoser@stern.nyu.edu |
| Luis Cabral (*Economics, NYU Stern*) | luis.cabral@nyu.edu |
| Walker Hanlon (*Economics, NYU Stern*) | whanlon@stern.nyu.edu |
| Robert Seamans (*Management & Organizations, NYU Stern*) | rseamans.stern.nyu.edu |

**Research interests**

Innovation and technology, machine learning & natural language processing, urban economics, law and economics, management, labour policy

**Education**

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| **NYU Stern School of Business** | 2013- |
| Ph.D. Candidate in Economics | |
| **University of Melbourne** | 2011 |
| Honours in Economics | |
| **University of Auckland** | 2007-2011 |
| Bachelor of Arts/Bachelor of Commerce (Philosophy & Economics) | |

**Papers**

**Measuring the Diffusion of Innovation: A Reassessment of Knowledge Spillovers Using Machine Learning** (*Job Market Paper*)

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*Abstract*: The ideas of new invention are encapsulated in the text of a patent. Empirical measures of knowledge flows have previously relied on citations, which are the inputs or influences behind new ideas, not the ideas themselves. I use recently developed Machine Learning/Natural Language Processing methods to convert patent abstracts (which are descriptions of the invention) to vectors and analyse the similarity across inventions. Unlike most of the citations-spillovers literature, I find that geographic localization effects are insignificant to modest: prior to controlling technological proximity, within technology field patents from the same city are about 0-0.08 standard deviations more similar than patents from different cities. Including further technology controls reduces estimates to -0.02 to 0.04. By contrast, citations based measures find that local patents have 0.24-0.34 standard deviations more citations from the same city compared to a non-local control. These findings suggest that geographic localization of knowledge spillovers may not be a strong driver of innovation and agglomeration.

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**Effect of management and workplace policies on workers' job satisfaction.**
**State sponsored innovation: Examining government funded technology from past to present.**

**Maintaining suspicion: Job creation through surveillance and incarceration. Professionalisation as barrier to entry.** *Joint with Karen Huang (Harvard)*

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| <span style="color:red">Awards & Fellowships</span> | American Economic Association (AEA) CSWEP Summer Dissertation Fellowship, *Federal Reserve Bank of Minneapolis* | 2018 |
| | Policy Research Fellowship, *Internet Association* | 2017 |
| | Teaching Commendation for Rating 6.5/7, Introductory Microeconomics, *NYU Stern* | |

<span style="color:red">Conferences</span>

*Transatlantic Doctoral Conference*, London Business School, London, England — 2018

*Early Career Economists Conference*, Monash University, Melbourne, Australia

*NET Institute Conference* (Discussant), NYU Stern, New York, USA — 2017

*NBER Digitization Tutorial*, Stanford University, Palo Alto, USA

<span style="color:red">Teaching</span>

**NYU Stern** — UG

*Teaching Fellow, Competitive Analysis* with Prof. Greg Kubitz (Spring 2017, Spring 2018)

*Teaching Fellow, Introductory Microeconomics* with Prof. Simon Bowmaker (Fall 2016, Fall 2017)

**University of Melbourne**

*Tutor, Advanced Macroeconomics* with Prof. Lawrence Uren (Semester 2, 2012)

*Tutor, Intermediate Macroeconomics* with Prof. Chris Edmond (Semester 2, 2012)

*Tutor, Introductory Macroeconomics* (Semester 2, 2011; Semester 1, 2012)

**NYU Stern** — MBA

*Teaching Fellow, MBA and EMBA Global Economy* with Prof. Stan Zin (Summer 2015, Summer 2016, Summer 2017)

*Teaching Fellow, Financial Crisis* with Prof. Kim Schoenholtz (Fall 2014)

<span style="color:red">Professional Service</span>

**NYU Stern**

*Doctoral Student Events Committee* (2015)

*Doctoral Applications Reviewer* (2010)

**University of Auckland**

*Student Representative*, University Central Committee, Senate and Equity (2010)

*Treasurer*, Auckland University Students' Association (2009-10)

<span style="color:red">Personal</span>

*Citizenship*: New Zealand

*Languages*: English (Native), Chinese Mandarin (Fluent)

*Programming languages*: Python, R, Stata