



Clover Network, Inc  
Data Science Intern

Sunnyvale, CA  
Jun 2019 – Aug 2019

Clover Network, Inc  
Data Analyst Intern

Sunnyvale, CA  
Jul 2018 – Sep 2018

## RESEARCH IN PREPARATION

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- McLeod, J., Kan, U., & López, E. (2022). The Heterogeneous Distribution of Local Family Ties Across Metropolitan United States (*in prep*).
- Kan, U. (2022). Transit Accessibility Explorer: A Web Map for Exploring Accessibility by Public Transit in Washington, DC (*in prep*).
- Kan, U. (2022). Transit Accessibility Open Software & Data Based on General Transit Feed Specification (*in prep*).
- Kan, U. (2022) An Agent-Based Model of the Spatial Mismatch Hypothesis (*in prep*).

## PUBLICATIONS

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### *Conference Proceedings*

- Kan, U., & López, E. (2021, November). Layered Hodge Decomposition for Urban Transit Networks. In International Conference on Complex Networks and Their Applications (pp. 804-815). Springer, Cham. [https://doi.org/10.1007/978-3-030-93413-2\\_66](https://doi.org/10.1007/978-3-030-93413-2_66)

### *Preprints*

- Kan, U., Feng, M., & Porter, M. A. (2021, December 10). An Adaptive Bounded-Confidence Model of Opinion Dynamics on Networks. <https://doi.org/10.31235/osf.io/gcxnf>

### *Expository Publications in Journal and Magazines*

- Brooks, H., Kanjanasaratool, U., Kureh, Y., & Porter, M. A. (2021). Disease Detectives: Using Mathematics to Forecast the Spread of Infectious Diseases. *Front. Young Minds*. 9:577741. doi: 10.3389/frym.2020.577741

## HONORS AND AWARDS

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Presidential Fellowship George Mason University	2020 - Present
Graduate Student Travel Fund (\$500) George Mason University	2021
Successful Participant COMAP Mathematical Contest in Modeling	2020
Excellence in STEM (Mathematics) Award Foothill College	2018

## TEACHING EXPERIENCE

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### Mathematics & Statistics Tutor

Oct 2017 - Jun 2018

Foothill College (Los Altos Hills, CA), EOPS Program

- Tutored college-level mathematics and statistics to underrepresented students in the EOPS program. Hired based on professors' recommendations.

## ACTIVITIES/PARTICIPATION

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- Presenter - The 8th International Conference on Computational Social Science, July 2022.
- Presenter - George Mason University Graduate Interdisciplinary Conference, April 2022.
- Presenter - The 10th International Conference on Complex Networks and their Applications, December 2021.
- Presenter - SIAM Dynamical Systems Conference, May 2021.
- Panelist & Participant - ICERM Computational Approaches to Social Justice Workshop, March 2021.
- Participant: American Mathematical Society Short Course "Mathematical and Computational Methods for Complex Social Systems," January 2021.
- Participant - UCLA IDRE Census Data Analysis and Mapping with Python Workshop, January 2021.
- Contestant - COMAP's Mathematical Contest in Modeling, March 2020.
- Participant - UCLA Department of Mathematics Directed Reading Program, AY20218-2019.
- Contestant - Stanford University TreeHacks Hackathon, February 2018.
- Contestant - NASA Space Apps Challenge (Palo Alto, CA), April 2017.

## NON-CONFERENCE PRESENTATIONS

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- *Getting Map Data from OpenStreetMap: OSM Data Model & Querying*. GMU GGS 692, March 2022. ([slides](#))
- (Paper discussion) *The Effects of Social Networks on Employment and Inequality (Calvo-Armengol & Jackson 2004)*. UCLA Networks Journal Club, September 2020.
- *Coevolving bounded confidence: modeling opinion dynamics on adaptive social networks with homophily (working paper)*. UCLA Networks Journal Club, May 2020.
- *Graph-based Recommendation Systems*. UCLA Networks Journal Club, Feb 2020.
- *Innovating Preferential Attachment Models to Study Innovation Networks*. UCLA Math 168 Final Project Paper Presentation, June 2019.
- *Interpretability in Machine Learning & Sparse Linear Regression*. UCLA Department of Mathematics Directed Reading Program, Quarter-end Presentation, Jan 2019.
- *Principal Component Analysis: A Mathematical Introduction*. Foothill College Independent Study Presentation, June 2018.

## PROFESSIONAL MEMBERSHIPS

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- Women in Network Science Society, 2020-2021. Member.
- Institute for the Quantitative Study of Inclusion, Diversity, and Equity, 2020-2021. Research Affiliate.
- UCLA Networks Journal Club, 2019-2020. Member.
- UCLA Women in Mathematics, 2018-2019. Member.

## SKILLS

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Computation: Python, Spatial Analysis, Mapping, Web Mapping with JavaScript Network Analysis (Python, networkx, Graphviz); Data Visualization (matplotlib, Tableau, Gephi); Object-oriented Programming; Agent-based Model Simulation; Data Science & Machine Learning (Python); SQL; Julia (intermediate); HTML/CSS & JavaScript (familiar)

Misc: LaTeX, Git, scientific communication

Languages: English (primary), Thai (native)

## OTHER

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Scientific blogging at [unchitta.com/blog](http://unchitta.com/blog)

Citizenship: THAI