# JINGYAN ZHANG

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## EDUCATION

**University of Hong Kong** *Sept 2022 - present*
*B.S. in Quantitative Finance and Mathematics* *GPA: 4.01/4.3*

**University of North Carolina at Chapel Hill** *Fall 2025*
*Exchange*

## RESEARCH EXPERIENCES

**Weekly EV Fast Charging Equilibrium Model** *Apr 2025 – Present*

- Developing a spatio-temporal stochastic choice framework that integrates station selection with stochastic queue/service/EV type dynamics and weekly usage cycles.
- Formulating users' decision process and designing algorithm based on the multilogit choice model to reach choice probabilities/waiting time equilibrium.
- Constructing a San Mateo regional case study for calibration and validation.
- Working paper; with Prof. Yong-Hong Kuo and Prof. Candace A. Yano.

**Time-Varying SIS Model** *May 2025 – Present*

- Formulating an infinite-horizon control problem for an SIS model with periodic transmission; deriving the HJB equation to obtain a general solution.
- Implementing numerical solvers to obtain cost-minimizing policy; analyzing structure (e.g., switching line) across parameter regimes to get its explicit form.
- Working paper; with Prof. Zhengli Wang.

**Optimal Multi-Armed Bandit with Dependent Arms** *Aug 2024 – May 2025*

- Extended a policy-tree construction to the general dependent-arms setting (binary and continuous belief states).
- Built a reproducible simulation framework to benchmark the optimal DEF policy against greedy, UCB, and the Gittins index.
- Under guidance of Prof. Zhengli Wang.

## TEACHING EXPERIENCE

**University of Hong Kong**, Teaching Assistant

- COMP1117 Computer Programming *Spring 2025*

## AWARDS AND ACTIVITIES

**Reaching Out Award**
**HKU Worldwide Undergraduate Student Exchange Scholarships**
**HKU Summer Research Program Scholarship**
**Martin Scholarship**
**Dean's Honours List 2022–2024**

## SKILLS

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|---|---|
| **Software** | Python, Matlab, LaTeX, Mathematica, QGIS |
| **Languages** | Mandarin (Native), English (Fluent), Cantonese (Intermediate) |