Hongyan Ke

HK838@cornell.edu |112 Valentine Pl #810, Ithaca, NY, 14850 | Cell: (551)-254-0736

EDUCATION

Cornell University **Expected Dec 2024**
Master of Engineering in Operations Research

The Pennsylvania State University **Dec 2022**
Bachelor of Science in Mathematics, Bachelor of Science in Finance, **GPA: 3.82**
Honors: Recipient of Dean's List Recognition

Selected Coursework: Service System Modeling and Design • Machine Learning • Linear Algebra • Probability Theory • Linear Programs • Advanced Financial Management • Security Analysis and Portfolio Management

SPECIALIZED SKILLS

Technical: Excel, Figma, Python, LaTex, SQL
Language: English (fluent), Chinese - Mandarin (native)

INTERNSHIP EXPERIENCE

CamScanner Product Management Intern, *Intsig Information Co. Ltd, Shanghai, China* **Feb-June 2023**

- Led a 9-member team to refine signature processes, track KPIs, and conducted market research to improve the completion rate of electronic signature process
- Employed Excel, Tableau, and SQL for monitoring crucial product metrics, offering insightful data-driven decisions
- Coordinated with legal counsel to verify and comply with regulations for identification verification signature processes, and compiled necessary legal documents for publication
- Performed A/B tests, leading to a 5% increase in completion rate for electronic signatures
- Conceptualized and implemented a "recent document" feature for the CamScanner PDF App, optimizing document retrieval and cloud-sharing functionalities
- Engaged with university groups and student organizations, bolstering brand presence and awareness across the US

RESEARCH & PROJECTS

NYC Citi Bike Case Study, *Cornell University* **Nov 2023**

- Identified a pressing need for the Citi Bike fleet in NYC to optimize its bike distribution across 3 million stations
- Assessed and identified the ideal fleet size and nightly redistribution needs for consistent weekday availability
- Cleaned data, developed a fluid model in Python, and strategized for the Bike Angels system to optimize placements
- Collaborated in pairs to articulate a data-driven Citi Bike allocation plan using LaTeX

Ambulance Deployment Case Study, *Cornell University* **Oct 2023**

- Proposed an optimized ambulance deployment plan for the Fire Department of New York
- Developed a Maximum Expected Covering Location model for improved ambulance positioning across locations
- Optimized ambulance deployment with Python libraries such as *Pandas*, *Haversine*, *Matplotlib*, and *Ortools*
- Formulated a specialized volunteer plan for cardiac arrest incidents using Spatial Poisson to enhance response times

Computational Linear Algebra Research Assistant, *Penn State University* **May-Aug 2022**

- Collaborated in a trio to develop a SageMath algorithm differentiating integrable and non-integrable functions
- Engineered a Mod P Reduction-based algorithm to discern underlying invariant rational functions
- Analyzed vast datasets to create histograms and the algorithm's efficiency by incorporating Brent's Cycle Detection

LEADERSHIP EXPERIENCE

Teaching Assistant, *Calculus & Analytic Geometry*, *Penn State University* **Jan 2021-May 2022**

- Hosted practice sessions during classes to ensure understanding of key points and facilitate class discussions

NEXUS, *Treasurer, Penn State University* **Oct 2021-Dec 2022**

- Coordinated with 50+ student clubs and departments for the freshmen Welcome Day and cooperated with student clubs and guest speakers to host a range of social events

INTERESTS

School Musical, Marching Band, Snowboarding, Free Diving, Photography, Tarot Card Reading