Kai M. Hung

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EDUCATION

Rice University, Houston, TX *Aug 2020 - May 2024*

B.S. Computer Science & B.A. Mathematics, Minor in Statistics **GPA: 3.95 / 4.0**

Relevant Courses: ML with Graphs, Intro to Machine Learning (ML), Optimization for ML, Computer Systems, Program Design & OOP, Advanced Statistical Methods, Honors Real Analysis I, Honors Linear Algebra, Multivariable Calculus, Probability & Statistics

Programming Languages: Python, JavaScript, R, Java, C, SQL

Tools & Frameworks: React, Scikit-Learn, PyTorch, Tensorflow, Spark, AWS, MongoDB, Git, Linux

WORK EXPERIENCE

ML Research Assistant at **Rice University** - Houston, TX *Aug 2022 - Present*

- Performing optimal transport-based graph factorization on African food web networks to conduct inference over predator-prey relationships under Dr. César Uribe.
- Utilizing StyleGAN3 for fossil image data augmentation under Dr. Guha Balakrishnan.

AI Research Intern at **Berkeley AI Research** - Berkeley, CA *Jun 2022 - Aug 2022*

- Modeled children's learning behavior with reinforcement learning (RL) paradigms to statistically test validity of various RL exploration algorithms under Dr. Alison Gopnik.
- Designed Q-Learning models to capture latent factors such as learning rate, exploratory tendencies, curiosity, and preference for 1-D vs. 2-D decision rules of human participants.

Software Developer at **Rice Apps** - Houston, TX *Jun 2021 - May 2022*

- Contributed 1400+ lines to **Rice Carpool**, a ride share app servicing 4000+ students, with ReactJS for front-end, MongoDB for data storage, and GraphQL for data query.
- Implemented ride creation, user onboarding, and profile creation functionalities.
- Enabled 450+ students to connect over 280 rides within 3-month launch period.

Research Intern at **MD Anderson Cancer Center** - Houston, TX *Jun 2021 - Aug 2021*

- Conducted RNA-sequencing analysis to identify causal factors for treatment response discrepancy using R to improve HPV+ Cancer immunotherapy under Dr. Jagan Sastry.
- Identified 485 differential expressed genes and 4 biological pathways contributing to **54% sustained tumor regression** in anti-PD1 immunotherapy treatment.

Teaching Assistant at **Rice University** - Houston, TX *Aug 2021 - Dec 2022*

- Verified new homework solutions, hosted office hours, and answered Piazza questions for an advanced algorithms course covering data structures, randomized algorithms, network flow, dynamic programming, and computability theory.

GitHub: KataTech | LinkedIn: linkedin.com/in/kai-hung-425a3918b | Portfolio: katatech.github.io