Jia Lin Hau

Contact	**University of New Hampshire,** Durham, NH	(603)-866-4273
	Department of Computer Science (Ph.D. Student)	JiaLin.Hau@unh.edu

Research Interests	Reinforcement learning, risk-averse optimization, machine learning, risk measures, financial mathematics, Bayesian method, actuarial science, probability, and statistics.

Education	**University of New Hampshire,** Durham, NH	2015 - 2018
	B.S. in Applied Mathematics: Economics, Summa Cum Laude (Dean's List)	**GPA: 3.89/4.0**

Groups: Reinforcement Learning and Robustness Lab, Vice President of International Student Organization, Pi Mu Epsilon of National Honorary Mathematics Society

Publications

Hau, Jia Lin and Petrik, Marek and Ghavamzadeh, Mohammad and Russel, Reazul. **RASR: Risk-Averse Soft-Robust MDPs with EVaR and Entropic Risk, ArXiv, 2022.**

Conference Reviewing

International Conference on Machine Learning 2022 (ICML)
NeurIPS 2021 Workshop on Safe and Robust Control of Uncertain Systems

Projects, Workshops, and Reports

Robust Pest Management, [poster] [slide] Talha Siddique, Jia Lin Hau, Shadi Atallah, Marek Petrik   Aug 2018-Mar 2019
Utilized STAN Bayesian statistical inference with MCMC sampling to capture prior knowledge, generate more possible data points, and compute the optimal Robust MDP policy via policy iteration.
Cryptocurrency Forecasting Analytics,   [report] Jia Lin Hau, Gerasimos Mouikis, Spencer Pope   Feb-May 2018
Forecasted cryptocurrency with time series analysis method VAR on the log return of the closing price.
MDP on Blackjack,   [presentation] Jia Lin Hau, Marek Petrik   Jan-Jul 2018
Utilized MDP (Value Iteration) to solve for the optimal action (Stand, Hit, Split, Double, or Surrender) for BlackJack with R.

Employment and Leadership Experience

UNH Computer Science Department, Durham, NH

Research Assistant - Reinforcement Learning and Robustness Lab	Fall 2020 - present

Teaching Assistant

CS 520 - Assembly language programming and machine organization	Spring 2020
CS 410P - Introduction to scientific programming in Python	Spring 2020
CS 410C - Introduction to scientific programming in C	Fall 2019
CS 725 - Computer networks	Fall 2019
CS 410P - Introduction to scientific programming in Python	Spring 2019

Idea Math, Nashua, NH

Junior Instructor/ Summer Camp Resident Assistant	Jun 2018-Aug 2019

- Trained K-12 students for Mathematics competition with challenging questions to enhance their problem-solving skills.
- Created study plans for the class and conducted group activities with students to assure they are motivated to learn.
- Structured activities and events for residential students to support a good experience and healthy lifestyle.

UNH International Student Organization, Durham, NH

Vice President	May 2017-Jun 2018

- Plan events to raise cultural awareness.
- Reach out and collaborate with other organizations and learn about others' cultures.
- Allocated tasks for volunteers and executive members based on their unique advantages.

UNH Mathematics Center, Durham, NH

Mathematics Center Tutor	Aug 2017-Jun 2018

- Clarified Mathematics concepts and assisted students with trouble with their homework.
- Organized a study plan for students to catch up with class content and learn more effectively.
- Conducted review sessions to help students prepare for exams and quizzes.

UNH Residential Life, Durham, NH

Resident Assistant	Aug 2016-Aug 2017

- Structured weekly social with 11 Co-Resident Assistants to maximize positive resident interaction and develop an inclusive community among 500 residents.
- Responsible for critical knowledge such as proper protocol involving responding to alcohol intoxication, roommate issues, and residents' personal issues.
- Communicated and related well with residents, staff, housekeepers, and maintenance personnel.

Extracurricular Certifications and Achievements

Marathon	2016 Manchester City Marathon by SNHU	1st in Co-ed Relay
	2015 Seacoast Half Marathon in Portsmouth	4th in division
Scuba Diving	2013 PADI Advance Open Water Diver	Certified
	2019 NAUI Open Water Scuba Diver	Certified
Competition	UNH 2017 Fall stock pitch competition, WTI (strong buy) - (post) doubled in 6 months	Semi-finalist
	UNH 2019 Holloway prize competition, emoai (facial recognition to avoid depression)	Semi-finalist
	Shayan Amani, Jia Lin Hau, Chao Chi Cheng, Lekyang Sai	
Actuarial	2018 Actuarial Science Exam P: Probability	Passed
Finance	2018 Bloomberg Market Concepts (BMC) Completion	Certified

Technical Skills

Coursework: Multi-Dimensional Calculus, Differential Equation, Linear Algebra, Probability and Stochastic, Financial Mathematics for Actuarial, Forecasting Analysis, Machine Learning, Econometrics, Numerical Method
Programming Languages: Python, R, MATLAB, Julia, JMP, BMC, C, C++, SQL
Languages: Mandarin, Cantonese, English, and Malay.