

JUSTIN L. WANG

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EDUCATION	University of Illinois at Urbana Champaign <i>Bachelor of Science in Computer Science & Mathematics</i> May 2022
TECHNICAL SKILLS	Languages : Python, SQL, C, C++, MATLAB, Java Tools/Frameworks : PyTorch, Tensorflow
EXPERIENCE	<div><div>WorldQuant Senior Quantitative Researcher • Leading development of impact/execution-cost-aware simulator for high intraday churn strategies • Developing tools for intraday signal research using internal impact and liquidity data July 2022 - Current New York, New York, USA</div><div>D. E. Shaw & Co. Quantitative Research Intern • Found and analyzed optimal trading execution algorithms for minutely-fixed depth trading in the presence of forecasts of varying realizations and impact • Explored reinforcement learning methods for finding optimal policies, including policy gradient and first-order methods June 2021 - Aug 2021 New York, New York, USA</div><div>Matician Research Engineer Intern • Modified Google FaceNet's unified embedding algorithm to learn one-shot open set re-id • Developed and extended Facebook Detectron2 pipeline to include one-shot identity verification • Experimented with variants of triplet loss to create a discriminate embedding in high order manifolds May 2020 - Aug 2020 Palo Alto, California, USA</div><div>Tsinghua University Tsinghua Laboratory of Brain & Intelligence Machine Learning Researcher • Researched brain-inspired computing and neurologic processes through unsupervised learning • Worked on NLP through extraction of spatiotemporal features from speech using sparse convolutional autoencoders • Programmed hierarchical encoding and decoding of phonemes to mimic brain decomposition of language in neuron clusters June 2019 - Aug. 2019 Haidian, Beijing, China</div></div>
PUBLICATIONS ¹	Wang, J. L. , Curtis, J. H., Riemer, N., and West, M., "Learning coagulation processes with combinatorial neural networks," <i>Journal of Advances in Modeling Earth Systems</i> , 2022. Wang, J. L. , Farooq, H., Ibrahim, A. K., and Zhuang, H., "Segmentation of Intracranial Hemorrhage Using Semi-Supervised Multi-Task Attention-Based U-Net," <i>Applied Sciences</i> , 2020. Wang, J. L. , Zhuang, H., Ibrahim, A. K., Cherubin, L., and Ali, A. M., "Medium-Term Forecasting of Loop Current eddy Cameron and eddy Darwin formation in the Gulf of Mexico with a Divide-and-Conquer Machine Learning Approach," <i>Journal of Geophysical Research: Oceans</i> , 2019.
RELEVANT COURSES	• Abstract Algebra • Abstract Linear Algebra • Data Structures • Deep Learning • Differential Equations • Optimization • Probability Theory • Real Analysis • Stochastic Processes
AWARDS & MISC.	• 2020 Franz Hohn and J.P. Nash Scholarship Recipient • 2020 UIUC HackIllinois Hackathon Best Novel Use of Mathematics • 2018 United States of America Computing Olympiad (USACO) Platinum Division • 2018 United States of America Mathematics Olympiad (USAMO) Qualifier

¹For a full list please see <https://www.justinlwang.com/publications/>