

# JUSTIN L. WANG

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EDUCATION	<b>University of Illinois at Urbana Champaign, IL</b> <i>Bachelor of Science</i> in Computer Science, Mathematics & Statistics Expected: May, 2022	GPA: 3.84/4.00
TECHNICAL SKILLS	<b>Languages :</b> Python, Java, C++, MATLAB, MSSQL <b>Tools/Frameworks :</b> PyTorch, Tensorflow	
EXPERIENCE	<b>Matician</b> Research Engineer Intern <ul style="list-style-type: none"><li>Modified Google FaceNet's unified embedding algorithm to learn one-shot open set re-id</li><li>Developed and extended Facebook Detectron2 pipeline to include one-shot identity verification</li><li>Experimented with variants of triplet loss to create a discriminate embedding in high order manifolds</li></ul>	<b>May 2020 - Current</b> Palo Alto, California, USA
	<b>SimBioSys Inc.</b> Deep Learning Engineering Intern <ul style="list-style-type: none"><li>Constructed CNNs for segmentation and classification as input to physical biology models for tumor growth forecasting</li><li>Set up efficient data streaming in Big Data environments for multi-gpu training of deep convolutional neural networks</li><li>Modified a 3D U-Net to allow for categorical data injection and joint segmentation and classification training</li></ul>	<b>Jan. 2020 - May 2020</b> Urbana, Illinois, USA
	<b>Tsinghua University</b> Tsinghua Laboratory of Brain & Intelligence Machine Learning Researcher <ul style="list-style-type: none"><li>Researched brain-inspired computing and neurologic processes through unsupervised learning</li><li>Worked on NLP through extraction of spatiotemporal features from speech using sparse convolutional autoencoders</li><li>Programmed hierarchical encoding and decoding of phonemes to mimic brain decomposition of language in neuron clusters</li></ul>	<b>June 2019 - Aug. 2019</b> Haidian, Beijing, China
PUBLICATIONS <sup>1</sup>	<b>Wang, J. L.</b> , 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.  <b>Wang, J. L.</b> , 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.  <b>Wang, J. L.</b> , Li, A. Y., Huang, M., Ibrahim, A. K., Zhuang, H., and Ali, A. M., "Classification of White Blood Cells with PatternNet-fused Ensemble of Convolutional Neural Networks (PECNN)," <i>Proc. IEEE International Sym. on Signal Processing and Information Technology (ISSPIT)</i> , 2018.	
RELEVANT COURSES	<ul style="list-style-type: none"><li>Abstract Algebra</li><li>Abstract Linear Algebra</li><li>Data Structures</li><li>Deep Learning</li><li>Differential Equations</li><li>Optimization</li><li>Probability Theory</li><li>Real Analysis</li><li>Stochastic Processes</li></ul>	
AWARDS & MISC.	<ul style="list-style-type: none"><li>2020 Franz Hohn and J.P. Nash Scholarship Recipient</li><li>2020 UIUC HackIllinois Hackathon Best Novel Use of Mathematics</li><li>2018 United States of America Computing Olympiad (USACO) Platinum Division</li><li>2018 United States of America Mathematics Olympiad (USAMO) Qualifier</li></ul>	

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