Junlin Wang

2023

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Education

2022 - Computer Science Ph.D, Duke University.

2020 – 2022 Computer Science MS, University of California, Irvine.

UCI GPA: 3.93

2016 – 2020 Computer Science B.S. / Mathematics B.S., University of California, Irvine.

UCI GPA: 3.91

Research Experience

Sep 2022 - Research Assistant, Prof. Sam Wiseman & Prof. Bhuwan Dhingra.

Ourham, NC

- Neurosymbolic NLP.
- NLP models generalization and Interpretability.

Nov 2018 - **Research Assistant**, *Prof. Sameer Singh*.

June 2022 **9** Irvine, CA

- Co-authored a demo paper "AllenNLP Interpret: A Framework for Explaining Predictions of NLP Models" at EMNLP2019 and won the Best Demo Reward.
- One first-author paper in EMNLP2020 Findings of manipulating interpretation techniques.
- Built an automatic evaluation platform for adversarial attacks/defenses. This platform will be used for CS 175 Winter 2022 at UCI.

Publications

NLP

Aug 2022 **Submitted**, GAP-Gen: Guided Automatic Python Code Generation.

Junlin Wang*, Yurun Song*, Junchen Zhao*, Ian Harris.

- Aug 2022 Submitted EAAI, Maestro: A Gamified Platform for Teaching AI Robustness.
- Nov 2020 **EMNLP Findings**, Gradient-based Analysis of NLP Models is Manipulable. **Junlin Wang***, Jens Tuyls*, Eric Wallace, Sameer Singh.
- Nov 2019 **EMNLP, Best Demo Award**, AllenNLP Interpret: A Framework for Explaining Predictions of NLP Models.

Eric Wallace, Jens Tuyls, **Junlin Wang**, Sanjay Subramanian, Matt Gardner, and Sameer Singh.

Link paper | Landing Page | Demo

Other Publications

Sep 2019 **SPIE Nanoscience** + **Engineering**, Improved regressions with convolutional neural networks for surface enhanced Raman scattering sensing of metabolite biomarkers.

William John Thrift; Cuong Quoc Nguyen; **Junlin Wang**; Jason Ernest Kahn; Ruijun Dong; Andrew Benjamin Laird; Regina Ragan.

Link paper

Industry Experience

Jan-Aug 2022 Intel Labs, NLP Research Intern.

Santa Clara, California

• Neurosymbolic Knowledge Generation. Paper is under process.

Jun-Sep 2021 **Tencent**, *NLP Research Intern*.

♀ Shenzhen, Guangzhou

- Combined GNN and NLP methods for better downstream tasks in Tencent Finance.
- Developed and evaluated GNN methods for large-scale payment data. Explored the potential of self-supervised learning on GNN.

Jun-Sep 2019 Comcast Applied Al Research Lab, NLP Research Intern.

- **Q** Washington, DC
- Developed a novel training routine for the translation model used by the Xfinity X1 remote voice control. Found 257 data artifacts in the production data and improved performance by 11%.
- Developed a React data visualization tool for voice command queries.

Other Research Experience

Jul 2018 - Lab Member, Deep Data Lab@UCI, website.

Feb 2020 ♥ Irvine, CA

- Used statistical analysis and machine learning to determine likelihood of defaults.
- o Collaborated with Experian to research new credit scoring methods.

Jul-Seq 2018 Research Assistant, Regan's Group@UCI.

- Co-authored and published a paper "Improved Regressions with Convolutional Neural Networks for Surface Enhanced Raman Scattering Sensors" at SPIE Nanoscience + Engineering.

Feb-Oct 2018 Research Assistant, Molloi's Lab@UCI.

- **♀** Irvine, CA
- Developed automatic algorithm to segment CTA Imaging on Coronary Arteries.
- Awarded E-SURP Fellowship.
- Presented posters at Heart to Heart Training Club and UROP Symposium.

Projects

https://isthatyou.github.io/pages/index.html.

Honors and Awards

Nov 2019	Best Demo Award	EMNLP 2019
Apr 2019	Best Visualization	DataFest 2019
Feb 2018	E-SURP fellowship	The Edward Lifesciences Center at UCI
Oct 2017	3rd Place	Microsoft Coding Competition at UCI
May 2017	Best Project and Development Practices	BeachHacks
Apr 2017	1st Place	1st Tippers IOT Hackathon
2018-2020	ICS Honors Program	UCI
2016-2020	Dean's Honor List	UCI

Presentations and Talks

Poster Presentations

- Mar 2020 AllenNLP Interpret: A Framework for Explaining Predictions of NLP Models, poster presentation at WeCNLP, 2020.
- Nov 2019 AllenNLP Interpret: A Framework for Explaining Predictions of NLP Models, poster presentation at EMNLP 2019, HK.
- Oct 2018 Automatic Segmentation of CTA Imaging on Coronary Arteries, Heart to Heart Training Club in the Edwards Lifesciences Center for Advanced Cardiovascular Technology, Irvine, CA.

Talk

- Sep 2019 **Feedback Mini-Batching: Automatically Detecting Data Artifacts and Robust Training**, Lab Week Talk at Comcast Applied Al Research Lab, Washington,DC.
- Nov 2018 Interpretations and Adversarial Attacks of DNN Models, Talk at ACM Club Seminar, Irvine, CA.

Involvements and Leadership

2019-2020 Vice President Association for Computing Machinery (ACM) – UCI Chapter 2018-2019 Vice President Artificial Intelligence club – UCI

Skills

Advanced

Python ,C/++ ,PyTorch $,MATLAB^{\textcircled{R}}$

Intermediate

Javascript ,TensorFlow

Technologies

MySQL ,ReactJS ,Bootstrap ,Flask ,Jupyter ,Unix/Linux