

# George Stoica

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## EDUCATION

### Georgia Institute of Technology

*Doctor of Philosophy in Machine Learning*

Advised by Professor Judy Hoffman

**Incoming Aug 2021**

### Carnegie Mellon University

*Bachelor of Science in Statistics and Machine Learning*

QPA: 3.68 (Last 2 Years: 3.93)

**Aug 2015 - May 2019**

University Honors | School of Computer Science College Honors | Dean's List with High Honors | Dean's List

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## CONFERENCE PAPERS

### Re-TACRED: Addressing Shortcomings of the TACRED Dataset

**AAAI 2021**

George Stoica, Emmanouil Antonios Platanios, Barnabás Póczos

### Contextual Parameter Generation for Knowledge Graph Link Prediction

**AAAI 2020**

George Stoica\*, Otilia Stretcu\*, Emmanouil Antonios Platanios\*, Tom Mitchell, Barnabás Póczos

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## WORKSHOP PAPERS

### Re-TACRED: A New Relation Extraction Dataset

**NeurIPS KR2ML 2020**

George Stoica, Emmanouil Antonios Platanios, Barnabás Póczos

### Knowledge Graph Enhanced Relation Extraction

**NeurIPS KR2ML 2020**

George Stoica, Emmanouil Antonios Platanios, Barnabás Póczos

### Contextual Parameter Generation for Knowledge Graph Link Prediction

**NeurIPS GRL 2019**

George Stoica\*, Otilia Stretcu\*, Emmanouil Antonios Platanios\*, Tom Mitchell, Barnabás Póczos

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## PREPRINTS

### Improving Relation Extraction by Leveraging Knowledge Graph Link Prediction

**arXiv 2020**

George Stoica, Emmanouil Antonios Platanios, Barnabás Póczos

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## RESEARCH EXPERIENCE

### *Research Assistant, CMU Machine Learning Department, Pittsburgh, PA*

**Aug 2019 - Jan 2021**

Exploring multimodal task compositions via vector-module-networks. Building end-to-end video anomaly detection and natural language explanation models. Proposed a new relation extraction dataset for future benchmarking. Enhanced relation extraction model performance through cyclical ties to link prediction. Advised by Professor Barnabás Póczos.

### *Honors Thesis, CMU School of Computer Science, Pittsburgh, PA*

**Mar 2018 - May 2019**

Proposed a relation- dependent approach to knowledge graph link prediction. Method improved state-of-the-art by up to 5.1%, with training time gains of up to 28x. Advised by Professors Barnabás Póczos and Tom Mitchell, and collaborated with Dr. Anthony Platanios and PhD Candidate Otilia Stretcu.

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## WORK EXPERIENCE

<b>Machine Learning Researcher, Inokyo, San Francisco, CA</b> Developed and demonstrated Inokyo's first end-to-end solution to item detection, tracking, and customer association for autonomous checkout in stores. Contributions under process of provisional patents.	<b>May 2019 - Aug 2019</b>
<b>Data Science Intern, Palo Alto Networks (PAN), Santa Clara, CA</b> Applied several classification and statistical methodologies to improve PAN's sales representative churn prediction model. Implemented sampling extensions to several frequently used classifiers in industry to increase model performance on PAN's heavily skewed class data distributions.	<b>May 2018 - Aug 2018</b>
<b>Engineering Intern, Conviva, Foster City, CA</b> Utilized statistical methodologies and Apache Spark to analyze Conviva's large scale video streaming datasets (10s of billions of views), and designed several new production metrics aimed at improving customer insights on Conviva's products.	<b>May 2017 - Jul 2017</b>
<b>Data Science Intern, Upwork, Mountain View, CA</b> Designed a freelancer hire prediction model using Active Learning on Upwork's large freelancer marketplace datasets. Mitigated learning on very skewed data.	<b>May 2016 - Jul 2016</b>

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## TEACHING EXPERIENCE

<b>Teaching Assistant, CMU Introduction to Machine Learning (PhD), Pittsburgh, PA</b> Prepared materials and assisted teaching the graduate course 10701: Introduction to Machine Learning (PhD). The course is a general introduction to machine learning methodologies. ~ 200 total students.	<b>Jan 2018 - May 2018</b>
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## ACTIVITIES

<b>President &amp; Co-Founder, CMU Data Science Club, Pittsburgh, PA</b> Organized corporate talks, workshops and datathons for over 200 club members. Represented club and presided over all club meetings and university functions.	<b>Nov 2016 - Nov 2017</b>
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## SKILLS

Python | Tensorflow | Pytorch | Apache Spark | Scikit-Learn | Numpy | Pandas | R | Scala | C

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## FOREIGN LANGUAGES

Romanian (fluent) | French (beginner) | German (beginner)