
DAN KONDRATYUK

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EDUCATION

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|--|-----------------|
| Computational Linguistics MS
Saarland University — Saarbrücken, Germany | <i>Jun 2019</i> |
| Computational Linguistics MS
Charles University — Prague, Czech Republic | <i>Jun 2019</i> |
| Computer Science BS
Boise State University — Boise, Idaho, USA
Mathematics Minor, Honors, 3.99 GPA | <i>May 2017</i> |

PUBLICATIONS

- Kondratyuk, D., Gavenčiak, T., Straka, M., and and Hajič, J. (2018). **LemmaTag: Jointly Tagging and Lemmatizing for Morphologically Rich Languages with BRNNs**. *Empirical Methods in Natural Language Processing (EMNLP)*.
- Yeh, J., Sun H., Karki, U., and Kondratyuk, D. (2018). **Integrity Coded Databases: Protecting Data Integrity for Outsourced Databases**. *IEEE Transactions on Dependable and Secure Computing*. Submitted for publication.
- Kondratyuk, D., Kennington C. (2017). **Towards a Dialogue System that Remembers**. *Proceedings of SEMDIAL*. p. 160.
- Kondratyuk, D. (2017). **Let's Try Something New: Service Learning in Boise State's Computer Science Department**. *International Journal of Undergraduate Community Engagement: Vol. 1: Iss. 1, Article 1*.

HONORS AND AWARDS

- **Erasmus Mundus Joint Master's Degree Scholarship** (2017 - 2019). *Language & Communication Technologies*. EACEA. European Commission. European program covering tuition, travel, and living expenses for two Master's degrees in Computational Linguistics.
- **Outstanding Student Award** (2017). *Boise State University Computer Science Department*.
- **Distinguished Honors Scholar** (2017). *Boise State University Honors College*.
- **Deep Learning Nanodegree** (2017). *Udacity*. Project-oriented course with TensorFlow.

RESEARCH EXPERIENCE

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| Research in Deep Learning
<i>Charles University</i> | May 2018 - Nov 2018
<i>Prague, Czech Republic</i> |
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- Designed a neural network model that jointly part-of-speech tags and lemmatizes sentences.
 - Paper publication at EMNLP 2018 in Brussels.
 - Open source (TensorFlow). <https://github.com/Hyperparticle/LemmaTag>

RESEARCH EXPERIENCE (CONTINUED)

Research in Dialog Systems

Sep 2016 - Oct 2017

Boise State University

Boise, USA

- Honors capstone project: developed NLP techniques for contextually-aware personal assistants.
- Open Source. <https://github.com/Hyperparticle/graph-nlu>

REU Fellowship in Group & Game Theory

Feb 2015 - Jan 2016

Boise State University

Boise, USA

- Objectives in discovering groups that are resistant to specialized adaptive chosen ciphertext attacks.
- Co-presented at the Joint Mathematics Meetings 2016 in Seattle.

REU Fellowship in Cryptography & Databases

Jun 2015 - Jul 2015

Boise State University

Boise, USA

- Implemented and tested an Integrity Coded Database (ICDB). Coded Java middleware for a MySQL database, verifying with cryptographic hashes. Benchmarked performance.

WORK EXPERIENCE

Full Stack Developer

Sep 2016 - Present

Hello Augi — helloaugi.com

Boise, USA

- Created a contextually-aware personal assistant chatbot for intelligent retrieval of profiles, past events, and daily activities (Kotlin, TypeScript, HTML).
- Developed Kotlin JVM server application deployed to AWS integrating with a Neo4j graph database and Angular 2 web client.

Software Engineering Intern

Aug 2015 - Oct 2016

Sensus Inc.

Boise, USA

- Developed automated integration test libraries for a smart grid distributed system (Java, C#, JS).
- Increased defect detection rate by 10% by implementing a Java radio simulator for SCADA hardware.

CONFERENCE PRESENTATIONS

- **LemmaTag: Jointly Tagging and Lemmatizing for Morphologically Rich Languages with BRNNs.** 2018. Poster Presentation. *Empirical Methods in Natural Language Processing (EMNLP)*. Brussels, Belgium.
- **LemmaTag: Using Data to Jointly Part-Of-Speech Tag and Lemmatize with Neural Networks.** 2018. Poster Presentation. *West Big Data Innovation Hub*. Boise, USA.
- **Improving the Memory of Intelligent Personal Assistants.** 2017. Podium Presentation. *Boise State Undergraduate Research Conference*. Boise, USA.
- **A Study of Games over Finite Groups.** 2016. Poster presentation. *Joint Mathematics Meetings*. Seattle, USA.
- **Integrity Coded Databases (ICDB): An Evaluation of Efficiency, Performance, and Practicality.** 2015. Poster presentation. *Idaho Conference on Undergraduate Research*. Boise, USA.
- **A Study of Games over Finite Groups.** 2015. Poster presentation. *Idaho Conference on Undergraduate Research*. Boise, USA.

ADDITIONAL PROJECTS

One Pixel Attack Keras

Mar 2018

- Demonstrates that convolutional networks can be fooled by changing one pixel in an image.
- Open source. <https://github.com/Hyperparticle/one-pixel-attack-keras>

TECHNICAL STRENGTHS

Programming Languages	Java, C#, C, Python, JavaScript, TypeScript, Kotlin
Domain Specific Languages	HTML, CSS, SQL
Frameworks	TensorFlow, Keras, Angular, Firebase
Tools	Node.js, AWS

LANGUAGES

English	Native
Russian	Proficient
French	Familiar

LINKS

Personal Website	https://hyperparticle.com
LinkedIn	https://www.linkedin.com/in/dankondratyuk
GitHub	https://github.com/Hyperparticle

REFERENCES

- Casey Kennington** Assistant Professor of Computer Science
Boise State University
1-208-426-5731, *caseykennington@boisestate.edu*
- Marion Scheepers** Professor of Mathematics
Boise State University
1-208-426-1033, *mscheepe@boisestate.edu*
- Kristin Collum** Scrum Master/Agile Coach
Sensus Inc. Distribution Automation, Boise
1-208-340-0295, *kristin.collum@sensus.com*