Jens Tuyls

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Education

Sep. 2016 – Jun. 2020 B.S. Computer Science & Engineering, University of California, Irvine, CA, **GPA:** 3.94/4.0.

Publications

Nov. 2019 Eric Wallace, Jens Tuyls, Junlin Wang, Matt Gardner, and Sameer Singh. AllenNLP Interpret: A Framework for Explaining Predictions of NLP Models. In Empirical Methods in Natural Language Processing (EMNLP), 2019 Best Demo Award, also a demo at NeurIPS 2019

Research Experience

Nov. 2018 - Present Research Assistant: UCI NLP University of California, Irvine Advisor: Professor Sameer Singh

> Investigate adversarial attacks and model explanations in NLP. Developed easy to use toolkit (AllenNLP Interpret) to interpret NLP models on top of AllenNLP, a deep learning NLP library used by top institutions and organizations.

Apr. - Jun. 2018 Research Assistant: Biological Network Group

University of California, Irvine **Advisor:** Professor Wayne Hayes

Implemented the orbit degree vector output for BLANT (Basic Local Alignment for Networks Tool) to gain more insight into the properties of protein networks.

Relevant Industry Experience

Jun. - Sep. 2019 Software Engineer Intern, Microsoft Corporation, Redmond, WA

Developer for the usage service of Azure Stack. Integrated alerting system that increases customer trust. Created design, requirements, code (C#), and tests.

Jan. – May 2018 **Software Engineer Intern**, *The Portal*, Irvine, CA

Built a web platform that provides start-ups with legal advice. Worked on both front-end (React) and back-end (Node, SQL).

Honors & Awards

Nov. 2019 Best Demo Award EMNLP 2019, Hong Kong.

Sep. 2018 – Present ICS Honors Program.

Sep. 2016 – Present **Dean's Honor List**.

May 2017 **Sylvia Easton Memorial Scholarship**.

Leadership

Apr. 2018 - Present Vice President, ACM@UCI, Irvine, CA

Direct weekly algorithm practices (i.e., graph theory, searching, sorting, etc.) and corporate outreach. Organize internal competitions and seminar talks.

Sep. 2017 - Mar. 2018 Webmaster & Internal Outreach, ACM@UCI, Irvine, CA

Managed club website. Organized and promoted events, talks, and competitions.

Nov. 2018 ZotHacks Mini-Hackathon: Mentor, Irvine, CA

Facilitated project brainstorming sessions. Familiarized teams with APIs, and web & mobile frameworks. Assisted with debugging code.

Nov. 2018 Co-coach ICPC Southern California Regional Contest, Irvine, CA

Managed and prepared the UCI teams for the ICPC regional contest.

Teaching Experience

Jun. - Sep. 2018 Math Teacher, Sylvan Learning, Mountain View, CA

Taught math, robotics, and coding to children from grades 2 - 11. Created individually tailored lesson plans and communicated progress to parents.

Course Projects

Apr. - Jun. 2019 MuseAI, Project in AI

Trained Random Forest classifier and Recurrent Neural Network on classical Bach music. Generated new music using the trained models.

Sep. 2019 - Present CrowdVision, Senior Design Project

Developed system that counts people in an image taken by a Raspberry Pi. Built server and computer vision system using Flask and FAIR's Detectron2.

Relevant Coursework

Algorithms for Probabilistic and Deterministic Graphical Models, Introduction to AI, Machine Learning and Data-Mining, Project in AI, Design and Analysis of Algorithms, Data Structure Implementation and Analysis, Multivariable Calculus, Linear Algebra, Elementary Differential Equations, Abstract Math, Elementary Analysis*, Discrete Mathematics, Introduction to Probability and Statistics for Computer Science

* To be completed by December 2019

Technical Skills

Programming Python, PyTorch, C++, C, C#, Java

Web Development JavaScript, React, Node, SQL, HTML, CSS

Languages

English Fluent

Dutch Native