JONATHAN XUE

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EDUCATION

08/2018-05/2021 **Bachelor of Science, Computer Science** – University of Illinois at Urbana-Champaign
Bachelor of Science, Psychology – University of Illinois at Urbana-Champaign
- Dual Degree, GPA: 3.98

08/2021-05/2022 **Master of Computer Science** – University of Illinois at Urbana-Champaign

EXPERIENCE

06/2021-08/2021 **Citadel Securities** – Software Engineer Intern
- Real Time Trading Components Team

06/2020-08/2020 **Amazon** – Software Engineer Intern
- Developed an analytics tool analyzing AWS Lifecycle metrics from data logs with the Elastic Stack. Sample use cases include identifying the customers driving growth for a given workflow and generating aggregate statistics for each workflow for a given customer.
- Deployed the tool to multiple AWS regions and extended support for additional data sources.

06/2019-08/2019 **Capital One** – Software Engineer Intern
- Developed a web application to organize data labeling for machine learning solutions using React.js + Redux with a Python Flask server and PostgreSQL database. Datasets are uploaded, annotated, and exported in both raw (JSON) and parsed (CSV, TSV, CoNLL) formats for different training models.
- Designed and implemented a separate text annotation module optimized for performance and stability.

11/2018-05/2019 **CME Group** – Robotic Process Automation Intern
- Architected digital worker to automate employee termination/resignation processes. Tasks include disabling the employee account from the Active Directory, terminating VPN/Remote-Desktop access, disabling access to remote web tools and business applications, and removing the account from email and distribution lists.
- Parsed emails to retrieve necessary employee identification information with C# .NET

09/2018-12/2018 **University of Illinois at Urbana Champaign** – Research Assistant
- Developed two separate Maven plugins to analyze and accommodate test dependencies in regression testing algorithms, namely test prioritization, test parallelization, and test selection. Helps developers locate and verify false positives/negatives.
- Work is 7.1% faster at producing reliable outcomes than algorithms which assume test independence.

SELECTED PROJECTS

CourseAssign *https://jonathanxue.com/CourseAssign*
- Developed a web application that analyzes teaching assignment and grade distribution data of past Computer Science courses at UIUC and their faculty instructors to determine best-fit matches between courses and faculty.
- Calculated semantic similarity between a course's description and an instructor's research interests with spaCy by comparing multi-dimensional meaning representations of keywords.

RELEVANT COURSEWORK

Algorithms & Models of Computation	Art of Web Programming	Artificial Intelligence
Computer Architecture	Data Structures	Database Systems
Distributed Systems	Internet of Things	Natural Language Processing
Neural Network Modeling	Numerical Methods	Probability & Statistics
Programming Languages & Compilers	Software Design Studio	System Programming

SKILLS

Languages: C, C++, HTML/CSS, Go, Java, JavaScript, Python, R
Database and Client/Server Technologies: Express, Flask, Mongo, Node.js, SQL