

Jacob Fuehne

jacobfuehne@yahoo.com | Raleigh, NC | 618-420-7980 | www.linkedin.com/in/jacobfuehne/

EDUCATION

University of Illinois at Urbana-Champaign <i>Master of Computer Science</i>	May 2023 – May 2025 GPA: ----- /4.00
University of Illinois at Urbana-Champaign <i>Bachelor of Science in Computer Science and Linguistics</i>	May 2021 GPA: 3.79/4.00
<ul style="list-style-type: none">1st place in 2019 Mechmania AI hackathonRelevant Coursework: Algorithms, Artificial Intelligence, Applied Machine Learning, Audio Computing Lab, Computational Linguistics, Computer Architecture, Computer Systems, Corpus Linguistics, Data Structures, Statistics, Programming Languages and Compilers	

EXPERIENCE

Cognizant <i>Quality Engineer</i>	Raleigh, NC June 2021 – Present
<ul style="list-style-type: none">Presented Maven project automating comment retrieval through YouTube's video search using Java, Selenium, Cucumber, and Jenkins.Transitioned Gilead Sciences to automated test scripts for Identity Management System and Authentication apps and maintained test user databases at Gilead Sciences using SQLCollaborated with software engineering team as SQA lead to resolve defects and manage SQA resources to meet project timelines.	
Solid Security <i>NLP researcher</i>	Champaign, IL October 2019 – April 2020
<ul style="list-style-type: none">Developed a program in Java to generate and index idiomatic permutations of a document through a custom Spintax ruleset, then discover the source of a leaker via semantic distance algorithms, syntactic differences, statistical analysis, and repeated exposureResearched and tested effectiveness between various algorithms in literature survey such as Hamming Distance, Levenshtein Detailed Distance, word2vec skip-gram, character n-grams, and moreWrote preprint papers and reviewed current literature on paraphrase detection and generation for text (available upon request)	
AbbVie Inc. <i>Software Engineer Intern</i>	Champaign, IL April 2019 – August 2019
<ul style="list-style-type: none">Worked with an Agile team of interns and a mentor to automate document processing for clinical drug trials, allowing pharmaceutical researchers to reallocate more than \$200,000 in salary hours towards doing research, rather than reviewing documentsConducted interviews with researchers and business directors at AbbVie HQ to analyze problem in beginning of internship, and to present results of bot at the end in front of an audience of 50 executives and researchersImplemented image recognition, machine learning, and statistical techniques in Python utilizing OpenCV, Matplotlib, NumPy, and other libraries to recognize and parse handwritten text in different formatsTested accuracies of various approaches to differentiating between intentional marks and bad scans, eventually deciding on Scipy stats to compare against a blank document copy and employing a histogram to determine statistical significance	
Southwestern Illinois College <i>Programming and Mathematics Tutor</i>	Belleville, IL August 2017 – May 2018
<ul style="list-style-type: none">Mentored students from various backgrounds in Java programming fundamentals along with Math courses up to Multivariable CalculusReceived International CRLA Level 1 Tutoring Certification, certifying competency in subject area and interpersonal communication skills	
Fresh Pear Design <i>Lead Web Developer</i>	Breese, IL July 2014 – September 2014
<ul style="list-style-type: none">Implemented responsive cross-platform websites in Adobe Dreamweaver using artwork from the design teamCoordinated other web developers as lead while communicating with the design team to reach customer deadlines	

PROJECT HIGHLIGHTS

Language Learning and Text Analysis app	Python
<ul style="list-style-type: none">Analyzing and combining conversation histories in various data formats (XML, JSON, txt) to perform data mining on one's own dataVisualizing term frequency, LDA topic modelling, and more to assist language learning, as well as novel linguistic analysis	
Educational Software	Java
<ul style="list-style-type: none">Consulted with the SWIC Math Department head to develop Java based GUI for Regional Math Tournaments hosted by SWICIndependently planned and accomplished client's design criteria, with regular updates to the client and self-regulated milestones	

RESEARCH

A Review of the Unified Corpus and a Methodology for Improvement on Generalizable Emotion Detection	December 2020
Solid Spintax Spinner: Method for Generating Permutations of a Spintax	March 2020
Solid Spintax Standard: Efficient and Scalable Deterministic Method for Specifying Indexable String Permutations	March 2020
Systems Enabling the Use of Natural Language Processing Methods for Software-Based Leak Detection, Prevention, ...	February 2020

SKILLS

Languages:	Java, Python, SQL, C++, R, JavaScript, HTML, CSS, C
Software/Frameworks:	NumPy, Selenium, Matplotlib, NLTK, Scikit-Learn, Pandas, Cucumber, AWS, Docker, Spark, OpenCV, Flask, Bash, JUnit
Concepts:	Text Analytics, Data Mining, NLP, Data Visualization, Neural Networks, Machine Learning, Databases