CHUNG-SHIEN (PAUL) LUH

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Education

University of Wisconsin–Madison May 2020
M.S. in Computer Sciences, College of Letters & Science
Specialization: Database Systems, Data Analytics

University of Illinois at Urbana-Champaign May 2018
B.S. in Computer Science (High Honors), College of Engineering
Minor in Mathematics
GPA: **3.88/4.0**

Selected Coursework

Database Systems, Data Mining, Machine Learning, User Interface Design, Software Engineering I, Software Engineering II, Topics in Database Management System, Statistics and Probability I, Statistics and Probability II, Numerical Methods, Elementary Number Theory, Intro. to Algorithms & Models of Computation

Experience

Teaching Assistant University of Wisconsin-Madison Sept. 2018-

- Course: *Intro. to Programming Language and Compiler.*
- Design/grade programming and written assignments.
- Hold weekly office hours.

Research Assistant University of Wisconsin-Madison May 2018-

- Investigated methods and tools to automate *information extraction* from richly-formatted documents using Python.
- Utilized Microsoft PROSE to apply program synthesis techniques to improve the efficiency of knowledge base construction.
- Developed experiment of evaluating statistical inference in *graph neural network* with PyTorch.

Django Developer University of Illinois at Urbana-Champaign May 2017 - May 2018

- Worked on RELATE, an interactive web-based courseware that provides online coding assignments and in-class quizzes, under the supervision of Prof. Andreas Klöckner.
- Improved the event manager features by implementing a better UI and enforcing row-level permission.
- Developed an in-browser code editor for modifying course content in Git repository using Dulwich.

Undergraduate Research Assistant University of Illinois at Urbana-Champaign Oct. 2016 - May 2018

- Worked in ShapeSearch under the supervision of Prof. Aditya Parameswaran.
- Designed tools and algorithms to parse plain English sentences into visual structural query languages using techniques from natural language processing and programming language using Python and NLTK.
- Implemented interfaces for interactive data exploration using Angular.
- Developed web applications on Amazon Mechanical Turk to collect 200 training data with Play framework.
- Improved F1-score of the conditional random field model tagger from 60% to 85% .

Publications

Siddiqui, T., **Luh, P.**, Wang, Z., Karahalios, K., & Parameswaran, A. (2018). Shapesearch: flexible pattern-based querying of trend line visualizations. *Proceedings of the VLDB Endowment, 11*(12), 1962-1965.

Selected Projects

CodeField 2018

- Used Vue and vuex to develop interfaces of an online judge used to train UIUC ICPC contestants.
- Designed user storeis and UML diagrams.
- Worked in a group of 8 software developers and followed extreme programming procedures.

sharemarkdown 2018
-Project Lead

- Developed an online Markdown editor aiming to feature online collaborative editing and file sharing.
- Implemented the back-end engine with Django REST framework and the front-end interface with React.
- Acquired knowledge about parameterized unit tests and regession testing.

Technical Strength

Programming Languages: Python, Java, SQL, Javascript, C++ (ordered by proficiency)
Tools: Git, Pandas, NLTK, JUnit, Selenium, TensorFlow, PyTorch
Web Technologies: Django, React, Spring

Awards & Honors

High Honors Graduate (UIUC)
Dean's List, 6 semesters