Chentao Ye

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Seeking 2023 Summer Software Engineer Internship

EDUCATION

Northwestern University *Evanston, IL*
M.S. in Computer Science *Sep 2022 – Dec 2023 (Expected)*

The University of California, Irvine *Irvine, CA*
B.S. in Computer Science, Minor in Statistics (Major GPA: 3.9/4.0) *Sep 2018 – June 2022*

EXPERIENCE

Research Assistant | Predictive Models for Diabetes Mellitus (DM) *Pittsburgh, PA* *July 2021 – Nov 2021*
Research Under Guidance of CMU faculty

- Applied **SVM** and **MLP** with **scikit-learn** to construct predictive models for the risk of Diabetes Mellitus
- Achieved the peak testing accuracy of **84%** and area under the ROC curve as **0.95**
- Visualized and compared the learning efficiencies of **active learning** and **random sampling** strategies
- **Conclusion**: active learning methods provide higher learning efficiency on DM predictive models than the ones applied to random sampling
- **Publication**: First-author, one paper including all logic and results of the research was accepted to ISAIMS 2021 (https://doi.org/10.1145/3500931.3500957)

Software Engineer Intern | ConfDes *Zhejiang, China* *May 2021 – Aug 2021*
Ningbo Supcon Microelectronics

- Participated in the development of a PLC industrial programming configuration software: ConfDes, with **Python**, **XML**, **JSON**, **C-Types**, **Threading**, **Socket**, **SVN** (version control)
- Designed and compiled a number of **wxPython** user interfaces
- Improved **37%** POU opening speed and **16%** project storage speed
- Fixed **40+ bugs** including find/replace, do/undo, and dynamic modification
- Added **12 new functions** including cross reference, real-time process monitoring, error message location, text input, conversion between structure text and variable table

PROJECTS

Business News Data Analyzer *Beijing, China* *June 2020 – Sep 2020*

- Constructed **MySQL** database through **Tushare API** with auto-updating and error-detecting
- Implemented **Word2Vec** algorithm to define the meaning of each word as a vector
- Used **Softmax** and **RNN** algorithms with **TensorFlow** to identify positive/negative vectors
- Calculated company risk scores and corresponding business opportunity scores for each period
- Applied **Matplotlib** and **NumPy** to visualize sorted business opportunity scores for **5,000+** companies

Offline Keyword Search Engine *Irvine, CA* *Mar 2020 – June 2020*

- Generated and stored inversed-index through **Scrapy**, **Beautiful Soap 4**, and **JSON handler**
- Implemented **TF-IDF** score calculation algorithm
- Optimized **PageRank** algorithm to calculate matching scores and avoid trap pages
- Used **PyQt5** to present **20** highest matching websites from over **56,000** web pages within **0.2** sec

SKILLS

Languages: Python, C/C++, JavaScript, HTML/CSS, MySQL, MongoDB, R
Technologies: PyQt5, wxPython, Scrapy, Beautiful Soap 4, Flask, TCP and UDP protocols
Developer Tools: PyCharm, Eclipse, VS Code, TortoiseSVN, Jupyter Notebook
Libraries: NumPy, Pandas, Matplotlib