ELIZABETH (TIANRUI) WANG

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EDUCATION

University of Michigan, Ann Arbor, MI   Expected Graduation Date: May 2022
- Bachelor of Science in Computer Science and Data Science, minor in Chemistry
- GPA:3.6/4.0 Dean's Honor List

Relevant Coursework: Data Structures and Algorithms, Discrete Math, Data Mining, Intro to Probability, Statistics and Data Analysis, Multivariable Calculus, Financing Technology Commercialization (Venture Capital Practicum)

EXPERIENCES

U.S. Food and Drug Administration, Silver Spring, MD   Jun-Aug 2020
Data Science Intern
- Built the chemical structurally searchable database platform, populated it with (Q)SAR reports, and migrated the data to FDA's server, enabling FDA drug reviewers to efficiently retrieve data on the FDA intranet
- Modernized the database capabilities using the Leadscope Enterprise structure registration and the document management software, ensuring FDA's consistency in the regulatory review of drug impurities
- Applied (Q)SAR models and other computational methods for making drug impurity predictions and for supporting FDA's regulatory decisions

NOVA Technology LLC, Ann Arbor, MI   Apr-Jun 2020
Software Engineering Intern
- Designed and developed database-driven websites and applications, leveraged the online course platform API, and provided customers with convenient online access for more than 10 courses
- Utilized JavaScript to improve the website UI, add client-side dynamic pages, and implement the comment feature, attracting more than 5000 users and customers
- Integrated with open source COVID-19 Vulnerability Index, providing the vulnerability prediction to customers and helping plan for, respond to, and reduce the impact of COVID-19 in customers' communities

Roche (Roche Molecular Diagnostics), Boston, MA   May-Aug 2019
Summer Research Intern
- Optimized the cobas Liat (Lab in a tube) system's internal data processing software using C++, improving the efficiency of lab researchers' data analysis by 20%
- Supported the quality control process, assisted the existing lab production system's evaluation, and analyzed the integrated hematology analyzer's image acquisition loops (the camera control loop, the Delta Tau loop)
- Wrote the white paper for the new nucleic acid assay product, which served as a critical guidance to instruct the research team to build the product and laid the foundation for the future marketing target

PROJECTS

Machine Learning in C++, Ann Arbor, MI   May-June 2020
- Developed a multi-variate Bernoulli naive Bayes classifier with natural language processing and machine learning techniques, trained the classifier to automatically identify the subject of Piazza posts and to predict labels for new posts

ACTIVITIES

Venture Capital Practicum, Ann Arbor, MI   Sept-Dec 2019
Team Leader
- Led a team of 6 to help a biotechnology company to refine its go-to-market strategy, value its assets, evaluate its R&D cost and create strong business models in order to garner outside investment
- Presented the company's pitch deck to investors and helped raise venture capital for the company

Alpha Phi Omega(APO) National Service Fraternity, Ann Arbor, MI   Feb-Dec 2019
Fraternity Brother
- Chaired service events and fellowship events and represented the chapter to attend the sectional conference
- Ran APO office hours to help students get access to the lost and found service and the 3D printing service

COMPUTER SKILLS

- Programming Skills: C++, C, Python, Javascript, SQL, R
- Software Products: GitHub, Xcode, Visual Studio Code, GitLab, JMP, MATLAB, LaTeX