(Rachel) Yuchen Zeng

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Summary of Skills

- Proficient in various programming languages, web technologies, and database systems for software development and data analysis
- Demonstrated expertise in conducting empirical experiments, literature reviews, and data analysis to contribute effectively to research projects
- Effective communicator with strong presentation skills, and proactively engages in project meetings.
- Quick learner committed to continuous improvement, and open to learning new frameworks and technologies as needed

Education

University of Toronto, Toronto, ON, Canada   **Sept 2019 – June 2024 (expected)**
Computer Science Specialist, Statistic Major   *GPA: 3.97/4.0*
Focus In Artificial Intelligence, Web And Internet Technologies, Computer Systems

Technical Skills

Languages/Database: Python, C, C++, R, SQL, Java, MongoDB, PostgreSQL
Web Technologies: JavaScript, HTML/CSS, PHP, React.js, Node.js, Bootstrap
Software & Tools: Shell, Git, LaTeX, Matplotlib, NumPy, Pandas, Scikit-learn, Flask

Research Experience

Intelligent Adaptive Interventions Lab   **Apr 2023 – Present**
Undergraduate Volunteer mentored by Ananya Bhattacharjee   *Toronto, ON, Canada*

- Developed and implemented user-friendly front-end interfaces for the Self-Generated Personalized Articulations and Reflections Kit, enhancing user engagement and accessibility
- Contributed to the writing and proofreading processes of a academic paper, ensuring high-quality content and adherence to publication standards
- Examined over 20 relevant studies to enhance the depth of insights in support of our research objectives

Exploiting Domain-Specific Parallel Data for Low-resource Language Translation Jan 2023 – Apr 2023
Undergraduate Team Lead in Lee Lab   *Toronto, ON, Canada*

- Conducted and analyzed more than 100 empirical experiments utilizing mBART, yielding valuable insights and data-driven findings
- Reviewed more than 200 relevant literature sources to inform model and language selection
- Coordinated weekly meetings, managed agendas and meeting notes, and established an organized document system, enhancing team productivity and collaboration
- Trained and mentored new students, ensuring their smooth transition into the lab, equipment familiarity, and rapid onboarding

Evaluating Models and Algorithms for Social Networks using Twitter Data   **Sept 2021 – Dec 2022**
Research Opportunities Program student supervised by Professor Peter Marbach   *Toronto, ON, Canada*

- Collected information of over 80k users and 12.7 million tweets, providing essential data for experiments
- Designed, implemented, and assessed the performance of six utility functions, resulting in the successful execution of experiments aimed at expanding social communities through the developed algorithm
- Delivered research findings to an audience of over 100 students and professors at the 2022 ROP Fair

Work Experience

Huawei Technologies Canada Ltd.   **May 2022 – Aug 2023**
Assitant Engineer, Distributed Data and Storage Lab   *Markham, ON, Canada*

- Developed, tested, and debugged novel features within GaussDB, an enterprise-class distributed database
- Implemented over 50 G-tests, mock tests, concurrency tests, and integration tests to ensure and enhance product quality
- Conducted an presentation on our algorithm design, engaging with an audience of over 40 senior and junior engineers

Projects

Moba Tracker Web App | *Javascript, HTML/CSS, React.js, Node.js Git*   **Jan – Apr 2022**

- Implemented a web forum for a popular 5v5 multiplayer game, with interactive functionalities and statistic analysis
- Achieved data across sessions using cloud MongoDB