# RUNLONG (HARRY) YE

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## EDUCATIONS

**B.Sc. in Computer Science Candidate**                    September 2019 - June 2024
University of Toronto

2023 University of Toronto Undergraduate Student Research Award (USRA) (grant: $7,500)
CRA Outstanding Undergraduate Researcher Awards 2023 Honorable Mention
Dean's List Scholar in '20-'21, '21-'22, '22-'23
Cumulative GPA: 3.71/4

## PUBLICATIONS

5. Zavaleta Bernuy, A., Sibia, N., Chen, P., Xu, J. J.-N., Tran, E., **Ye, R.**, Pammer-Schindler, V., Petersen, A., Williams, J. J., & Liut, M. (2024, May). Does the Medium Matter? A Comparative Analysis of Voice and Text Reflective Learning. Under review for *ACM Conference on Designing Interactive Systems 2024 (DIS '24)*.

4. Kazemitabaar, M., **Ye, R.**, Wang, X., Henley, A., Denny, P., Craig, M., & Grossman, T. (2024, May). CodeAid: Evaluating a Classroom Deployment of an LLM-based Programming Assistant that Balances Student and Educator Needs. Accepted at the *2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*. (preprint)[2]

3. Zavaleta Bernuy, A., **Ye, R.**, Sibia, N., Nalluri, R., Williams, J. J., Petersen, A., Smith, E., Simion, B., & Liut, M. (2024, March). Student Interaction with Instructor Emails in Introductory and Upper-Year Computing Courses. Accepted at *the 55th ACM Technical Symposium on Computer Science Education (SIGCSE '24)*. (preprint) [1]

2. Zavaleta Bernuy, A., **Ye, R.**, Tran, E., Mandal, A., Shaikh, H., Simion, B., Petersen, A., Liut, M., & Williams, J. J. (2023, November). Do Students Read Instructor Emails? A Case Study of Intervention Email Open Rates. In Proceedings of *the 23rd Koli Calling International Conference on Computing Education Research (Koli Calling '23)*. (preprint) [1]

1. **Ye, R.**, Chen, P., Mao, Y., Wang-Lin, A., Shaikh, H., Zavaleta Bernuy, A., & Williams, J. J. (2022, September). Behavioral Consequences of Reminder Emails on Students' Academic Performance: a Real-world Deployment. In Proceedings of *the 23rd Annual Conference on Information Technology Education (SIGITE '22)*. Received the **Best Paper Award** 🏆 [1]

## RESEARCH PROJECTS

4. **Systematic Literature Review on A/B Testing in Computing Education Research**          January 2024 - Present
*Intelligent Adaptive Interventions (IAI) Lab, University of Toronto*          *Toronto, ON*

· In early stages.

3. **Systematic Literature Review on the Social Impact of Generative AI**          September 2023 - Present
*University of Toronto Mississauga*          *Mississauga, ON*

· Create scripts with complex logic to automate the paper curation process on 5 popular scholarly platforms, resulting in more than 10,000 papers successfully pulled.
· Conduct an extensive literature review on Generative AI breakthroughs, covering foundational models, theoretical advancements, validations, and social impacts.
· Create a thematic analysis codebook and specialized classification tag to encapsulate key findings.

2. **Design and Evaluation of New Programming Tools using AI Coding Assistants** January 2023 - December 2023
*Dynamics Graphics Project (DGP) Lab, University of Toronto*          *Toronto, ON*

· Monitored a particular LLM-based implementation that was fine-tuned and deployed for a second-year university course of size 700. Carefully tracking usage patterns and identifying areas for improvement.

- Created thematic analysis codebook and specialized classification tags to better evaluate students' interaction with the tool and the tool's responses.
- Performed quantitative and qualitative data analysis on students' tool usage on over 8,000 student interactions with the tool, and over 1,000 survey responses.

1. **Impact of Reminder Emails Using Randomized A/B Comparisons**      August 2020 - December 2023
*Intelligent Adaptive Interventions (IAI) Lab, University of Toronto*      *Toronto, ON*

- Improved the design of personalized real-world interventions to encourage students to start early. Successfully deployed these interventions to thousands of students, within over 5 different courses, among 2 University of Toronto campuses, across multiple semesters.
- Developed a comprehensive set of tutorial videos and synchronous workshop sessions to onboard other project members to deploy the experiment. Ensured successful and on-time intervention deployments.
- Quantitatively analyzed various factors and derived meaningful, statistically significant results on how reminder messages impact student behaviour and performance.
- Created interview guide and conducted interviews with ∼15 students per semester to collect qualitative feedback on the reminder messages. Employed feedback to improve future interventions iteratively.

## WORK EXPERIENCES

**Full-Stack Software Developer Intern**      May 2022 - May 2023
*Advertising and Customer Experience (CX), Oracle*      *Toronto, ON*

- Maintained and updated dependencies and documentation for 20+ projects and apps.
- Migrated and implemented core functions to a Kubernetes cluster, leading to improved scalability, reliability, and cost savings for the core application.
- Developed 2+ complex end-to-end API automation test cases in Java, handling asynchronous operations between multiple applications, resulting in a reduction of manual testing and increased testing efficiency.
- Contributed to the rewrite of a legacy web application, involved in 3 different sub-pages using the latest React and OJET components, leading to improved user experience and modernization of the application.
- Created and implemented 20+ end-to-end browser automation test cases in Selenium WebDriver and C#, including related infrastructure, ensuring maximum testing reliability and resulting in enhanced testing coverage and efficiency.

**Undergraduate Research Assistant**      August 2020 - Present
*Dynamics Graphics Project (DGP) Lab, University of Toronto*      *Toronto, ON*

- Contributed extensively to multiple research projects, supporting adaptive experiments, leading to numerous meaningful publications.

*Undergraduate Manager, Intelligent Adaptive Interventions (IAI) Lab*      May 2021 - May 2022

- Manage 30+ undergraduate researchers, recruit and onboard 4+ cohorts, a total of 40+ new undergraduate researchers, and prepare and host weekly undergraduate meetings to keep members accountable.
- Allocate and assign resources and tasks to improve lab operation efficiency and individual potentials.
- Communicate extensively with external collaborators, faculty members and graduate students frequently to have an effective lab structure.

## TEACHING EXPERIENCES

**Teaching Assistant**      September 2021 - Present
*University of Toronto*      *Toronto, ON*

**Introduction to Databases** - CSC343 (Winter '23, Winter '24: Head TA)
**Introduction to Computer Programming** - CSC108 (Fall '21, Fall '23: Head TA)

- CSC343: Support instructor to develop and update the current course, including overall course structure, pre-lecture videos, lectures, tutorials and assignments. Preparing and delivering weekly tutorials, monitoring and answering student questions on online forums, and grading students' assignments and exams.
- CSC108: Host breakout rooms to teach course exercises in an active learning environment and answer students' questions during lectures.
- Host TA office hours and tutorials to understand and answer students' questions on course contents.

## TALKS

1. **The 23rd Annual Conference on Information Technology Education (SIGITE '22)**      September 2022
*Paper Presentation*      *Chicago, Il (Virtual)*

- Title: [Behavioral Consequences of Reminder Emails on Students' Academic Performance: a Real-world Deployment](#)

## SERVICES

**Conference Volunteers**

SIGCSE '23, CHI '24

## TECHNICAL STRENGTHS

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| **Computer Languages** | Python, Java, R, HTML, JavaScript, SQL, Bash, C#, C, Assembly |
| **Scientific Libraries** | Pandas, NumPy, SciPy, Matplotlib |
| **Technologies/Frameworks/Databases** | Django, React, React Native, PostgreSQL, Selenium WebDriver |
| **Cloud/Developer Tool** | Azure, AWS, Docker, Git, Postman |