Ujjval Rajput

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Education

University of Toronto **Sep 2021 - May 2026**

Honours Bachelor of Science - Computer Science & PEY/Co-op

- Cumulative GPA: 3.4/4, UofT Scholar ($3000)
- Relevant Courses: Data Structures & Analysis, Software Design, Systems Programming, Data Science, Statistics, HCI
- Extra Curricular: Google Developer Club, Robotics Club, Society for Algorithmic Modelling

Skills

Languages: Python, Java, C, HTML, CSS, JavaScript, TypeScript, R, Bash, Assembly, LaTeX
Frameworks/Libraries: React, Node.js, Express.js, JavaFX, JUnit, Tkinter, pytest, Hypothesis, NumPy, Pandas, Matplot
Tools: Git VCS, MS Excel, Tableau, Adobe XD, InDesign, Unity, Maya, ArcGIS Pro
Others: Leadership, interpersonal & communication skills, creative & analytical thinker, organization & collaboration skills

Experience

Peer Mentor **Sep 2023 – Apr 2024**

International Mentorship in Academics and Canadian Culture *University of Toronto*

- Mentored students in technology, aiding them in navigating academic and mental challenges via resources.
- Conducted one-on-one meetings, and mock presentations to enhance mentees' public speaking skills in technology.

Lead Facilitator, CSC108: Computer Programming **Aug 2023 – Dec 2023**

Department of Mathematical and Computational Sciences *University of Toronto*

- Crafted Python session plans, covering topics like data structures and time complexity, fostering in-depth learning.
- Led study sessions, boosting participant understanding and achieving a 15% average grade improvement for attendees.
- Collaborated with facilitators, program assistant, and course instructor which supported students' technical growth.

Student Ambassador, Academic Integrity Unit **Sep 2022 – Apr 2023**

Office of the Vice-Principal Academic & Dean *University of Toronto*

- Promoted academic integrity, aiming to minimize misconduct, and was featured in the Dean's Newsletter.
- Secured 1st place globally in the 'Action Against Contract Cheating' contest, elevating the university's reputation.
- Planned and executed 4 educational and outreach initiatives, discussing current student issues of academic integrity.

Projects

Maze - Adventure Game | *Java, JavaFX, JUnit, Eclipse*

- Implemented a model-view-controller system using OOP, design patterns and JavaFX for a GUI based adventure.
- Developed customizable controls using any keys and mini-games within the game, increasing user engagement by 20%
- Utilized Agile Methodologies, Git and Scrum Sprints to work efficiently in a team of four developers.

Compression/Decompression Software | *Python, Tkinter*

- Implemented a Huffman coding algorithm for lossless compression and decompression of any type of files.
- Optimized the algorithm through strategic, case-dependent node-swapping, resulting in faster compression.
- Integrated a GUI with file-dialog interface, enabling users to swiftly locate, save and modify files.

Text & Emoji Web App | *HTML, CSS, JavaScript*

- Built a responsive web-app enabling text encryption into emojis and decryption of emojis into text using a password.
- Implemented local storage for data persistence and password-protection to encrypted messages, adding security features.

MewbileTech Phone Company | *Python*

- Developed a geospatial tool for call data, providing an interactive map-based representation of calling activity in Toronto.
- Implemented filtering features enabling selective display of calls and texts based on customers, location and duration.
- Built phone-line contracts and their billing feature, allowing the visualization of customer-specific bills.

Pytube Fetcher | *Python, Tkinter, Pandas, Matplotlib*

- Enabled users to download non-copyrighted content up to 1080p using YouTube API, incorporating threading techniques to simultaneously convert multiple formats, increasing efficiency by 30%.
- Implementated conversion history storage, subsequently leveraging it to conduct data analysis of past conversions through visualization techniques, facilitating feature enhancements.