Aarushi Alreja

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EDUCATION

Honours B.Sc. in Computer Science & Statistics   Sep 2023 – Present
University of Toronto   cGPA: 3.60/4.00   *Toronto, ON*
- **Relevant Coursework:** Systems Programming, Software Engineering, Algorithm Design & Analysis, Information Security, Software Design, Regression Analysis, Object-Oriented Programming

PROJECTS

KindSite | *Next.js, React, Flask, ElevenLabs*   Aug 2025 – Present
- Built a **full-stack accessibility platform** that applies WCAG-aligned accessibility presets (dyslexia-friendly fonts, spacing, high contrast, color-blind safe palettes) to any page/PDF.
- Delivered **personalized TTS** (ElevenLabs), per-site overrides, and **saved user profiles** for consistent, accessible reading across sessions.

AR Museum - Augmented Reality Web App | *React, AR.js, Firebase, A-Frame, OAuth*   Feb 2025
- Built an interactive **AR web app** for DeerHacks where users can leave text and drawings in real-world locations, viewable in augmented reality.
- Implemented Google OAuth login, live location tracking, and messaging features within a **React dashboard**.
- Integrated **A-Frame + AR.js** for rendering AR content, and used **Firebase NoSQL** + Google Maps API to store and display user-generated AR data.

Mysh - Custom Linux Shell | *C, Linux, Git, AddressSanitizer*   Jan 2025 – Apr 2025
- Built a **fully functional Linux shell in C** supporting built-in commands (ls, cd, cat, wc), pipelines, background processes (&), and signal handling.
- Implemented process management, file system navigation, and client-server networking for system access.
- Developed Makefiles with debugging and memory-safety flags; tested with AddressSanitizer to ensure robustness.

RELEVANT EXPERIENCE

Teaching Assistant   Aug 2025 – Present
University of Toronto   *Toronto, ON*
- Lead weekly tutorials for over 35 students and regular office hours for Introduction to the Theory of Computation.
- Collaborate with faculty to improve course delivery, sharing insights on common student challenges and potential curriculum refinements.
- Grade **200+** assignments and exams, with attention to detail and accuracy, ensuring consistent results.

Research Assistant   Aug 2025 – Present
University of Toronto, Statistics Department   *Toronto, ON*
- Develop **interactive Statistics course tutorials** with auto-grading and hints to improve student learning while practicing R coding with real-time feedback.
- Work with **JavaScript, Quarto, WebR** to integrate R coding modules for 300+ students taking Statistics courses at UofT.

Data Science SkillsBuild Intern   May 2024 – Aug 2024
International Business Machines   *Remote*
- Developed a **supervised ML model** in Python (**Pytorch, TenserFlow, Scikit-learn, Pandas, NumPy**) to analyze energy consumption data, connecting findings to sustainability goals.
- Performed exploratory data analysis and visualized patterns with Matplotlib, Seaborn, Tableau, and IBM Watson Studio.

TECHNICAL SKILLS

Languages: Python, C, Java, Bash, SQL, Javascript, TypeScript, PHP, Shell Scripting (zsh/sh), HTML/CSS, R, Quarto
Frameworks: React, NodeJS, JUnit, FastAPI, Flask, Firebase, DAX, YAML, XML, Express.js, Wordpress
Libraries: PyTorch, TensorFlow, pandas, NumPy, Matplotlib, Seaborn, Scikit-learn
Developer Tools: Git, Docker, LaTeX, LLMs, RStudio, Google Cloud Platform, Visual Studio