MOUIZ AHMED

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Education

York University - Lassonde School of Engineering   Toronto, Canada
Bachelor of Engineering, Software Engineering   *Sept 2020 – April 2026 (Expected)*

Professional Experience

Ericsson   Ottawa, ON
5G Software Developer Intern   *Sept 2023 – Aug 2024*
- Architected an energy efficiency **Python** script to **automate** the management of cell and sector activities on nodes, including powering off radios and disabling **eNodeBs/gNodeBs** during off-peak hours, **cutting energy use by 30%**
- **Led** a team to develop an automated analytics platform using **React**, **Grafana**, and **Python** to automate **CLI** interactions with radio-tower nodes, ingested real-time performance metrics, and enabled predictive maintenance
- Optimized and migrated to a new **test automation framework** for 5G software, writing **25+** comprehensive test cases in **JUnit**, reducing test execution time by **25%** and enabling **2X faster** release cycles for critical wireless features

Chatbase   Toronto, ON
Software Developer Intern   *May 2023 – Aug 2023*
- Developed a front-end customer support portal written in **TypeScript** using **Zendesk API** integration that **decreased ticket resolution time by 50%** and **improved user satisfaction scores from 3.8 to 4.1**
- Built a data export tool that lets clients download chatbot conversation logs and analytics, **boosting customer retention by 15%**
- Designed and implemented scalable **Shopify**, **Facebook**, and **Wix** integrations for Chatbase's chatbot platform, enabling customers to seamlessly deploy their AI-powered chatbots on these platforms
- Standardized **RESTful API** documentation and authentication workflows using **Mintlify**

York University - Lassonde School of Engineering   Toronto, ON
Academic Peer Support Work-Study for ENG 1101   *Sept 2021 – Dec 2021*
- Mentored and supported new students, facilitating their transition into university life and fostering a sense of belonging on campus – resulting in a **25% improvement** in academic performance
- **Hosted** community building events and workshops, fostering social connections and improving overall mental health

Projects

RateThatClass.com | GitHub   Next.js, Node.js/Express.js, TypeScript, Python, PostgreSQL, Docker, AWS
- A web service that allows users to anonymously review their post-secondary classes, currently with **100+ active users**
- Built a **Python web scraper** using **Selenium** and **Beautiful Soup**, with **multithreading** and **thread-safe** logging, collecting and updating data for **10,000+** courses across all Ontario universities
- Developed a responsive **Next.js** frontend with **server-side rendering** to improve Google **SEO** performance and user experience
- Built a **Node.js/Express.js** backend with **RESTful** API architecture for scalable data management

Quad-Tree Image Compression | GitHub   Rust
- Developed a **high-performance** image compression library and CLI tool leveraging **quad-tree** and **prefix sum array** data structures
- Designed an algorithm with **constant-time complexity** independent of image size, capable of processing an 8K image through **millions of iterations in under a second**

CatchGPT | GitHub   Python, Flask, Huggin Face API, PyTorch, HTML/CSS, jQuery
- A web tool that allows educators to determine if a piece of text was AI-generated with **90% accuracy**
- Calculates the perplexity per sentence, and burstiness via Hugging Face's pre-trained GPT2 model
- Provides text metrics and graphs for a holistic approach to plagiarism detection

Technical Skills

Languages: Java, Python, JavaScript, TypeScript, HTML5, CSS3, SQL, Go, C, C++, C#, Rust
Technologies: React/Next.js, Express.js, Node.js, Flask, Django, AngularJS, Tailwind CSS, MATLAB, Maven/Gradle, Randoop, JUnit5, Jest
Development Tools: Git, Docker, Bash, Linux, PostgreSQL, Firebase, AWS, Azure, GCP, Jira, Jenkins, Cron