RAWAN KARROUM

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EDUCATION

Toronto Metropolitan University   2020 – 2024
Bachelor of Computer Engineering (B.Eng.): Software Engineering (with distinction)
- Dean's List 2020-2021, 2022-2023 & 2023-2024 with a CGPA: 3.72 / 4.33
- Relevant Coursework: Object Oriented Analysis Design, Software Design Architecture, Software Project Management, Advanced Algorithms, Database Systems, Machine Learning and Intelligent Systems, Software Testing and Quality Assurance

EXPERIENCE

Software Engineering Fellow   Jul. 2024 – Sept. 2024
Headstarter AI
- Designed and developed an AI-powered chatbot using LangChain, Next.js, React.js, and Pinecone that scrapes university and college websites to answer questions from students in real time, providing accurate information on applications, courses, fees and deadlines
- Built an AI-driven "Rate My Professor" tool using Python, Pinecone, and a sentiment analysis pipeline to summarize professor ratings, analyze feedback, and display sentiment trends over time, helping students make decisions
- Collaborated with 7 engineering teams to improve project workflows, provided technical mentorship, and guided architectural decisions, resulting in the successful delivery of 5+ AI applications

Junior Developer Intern   May 2023 – Aug. 2023
Carlton One Engagement
- Used JavaScript and PHP to transform UI/UX designs into user-friendly web interfaces, adding 15+ new features
- Linked front-end elements of websites with RESTful APIs for improved functionality and user experience
- Utilized DataDog to monitor and troubleshoot, reducing errors by 20%, and increasing system efficiency
- Used Docker for efficient organization and deployment of web applications

Applications Analyst, Co-op   May 2022 – Aug. 2022
PointClickCare
- Designed, implemented, and tested new enhancements and solutions to drive business processes using NetSuite, Salesforce, Jira, and Confluence
- Provided customization, configuration and troubleshooting support for internal departments using NetSuite and Salesforce, resolving issues 25% faster

PROJECTS

AI-Powered Adaptive Learning | *Next, Typescript, PostgreSQL, Django, Docker, Kubernetes*   Jan. 2025 – Present
- Developed a platform using React.js and Next.js to deliver personalized study recommendations and efficient course management for students and teachers
- Integrated generative AI to analyze quiz performance and provide actionable feedback, enhancing learning outcomes based on engagement and accuracy
- Implemented PostgreSQL for structured data storage and built REST APIs using Django for backend development
- Utilized Docker for containerization and implemented Kubernetes for orchestration and scalable AWS deployment

ResumeReady | *React, Next, Typescript, MongoDB, OpenAI, Langchain, Stripe API*   Sep. 2024 – Present
- Developed a web platform, with another software engineer, using React.js and Next.js to analyze resumes and job descriptions, providing tailored resume feedback, cover letters, and interview questions for enhanced job application success, reducing the time to apply for jobs by 40%
- Integrated OpenAI, LangChain and RAG to generate personalized cover letters, and behavioral and technical interview questions related to the specific job description, helping users better prepare for interviews
- Implemented MongoDB to store user-generated content and feedback, ensuring scalability and efficient data management for thousands of users

Hackathon Winner — Spend Ruby Financial Platform   Aug. 2024
Headstarter AI

TECHNICAL SKILLS

Languages: Javascript, Typescript, HTML, CSS, SQL, Python
Frameworks: React.js, Node.js, Next.js, Express, Django
Technologies: Git, PostgreSQL, MongoDB, Jira, OpenAI, Postman
Methodologies: Agile, Scrum, Test-Driven Development (TDD)