BILAL SAAD

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TECHNICAL SKILLS

- **Languages:** Java, Python, C++, C#, JavaScript, TypeScript
- **Frameworks & Libraries:** FastAPI, Node.js, React, Next.js, REST APIs
- **Databases:** PostgreSQL, MongoDB, Power BI, Power Query
- **Tools & Platforms:** Git, AWS

EXPERIENCE

Open-Source Software Developer | **Western University** | [UWO Expired Patent Search](#)   **September 2025 – Present**

- Built a Western-branded, open-source platform to find U.S. patents that lapsed for non-payment. Implemented a Python (FastAPI) + Next.js stack and a weekly ETL that aligns with USPTO maintenance-fee releases to speed up access to public-domain IP and accelerate open-hardware innovation.
- Delivered accurate expiration detection and a simple search UX by mapping expired maintenance fees to patent titles and dates then presented them with hyperlinks to the USPTO website that displays the over 50% of patents that expire due to no payment
- Increased data retrieval speed by over 1,500× through full automation of data extraction, cleaning, and indexing processes, enabling results to load within seconds with minimal user input. Eliminated hours of manual searching, streamlined workflow efficiency, and significantly enhanced the accessibility of expired patents.

Process and Applications Systems Intern | **Celestica**   **May 2024 – August 2025**

Power BI and SQL Systems Owner

- Built 7 Power BI dashboards using Power Query and SQL for the backend operations and DAX for the front-end development that were crucial to the supply chain's team's operation and analysis.
- Built over 10 new innovative metrics by integrating Azure Blob Storage, SQL, SAP, and Microsoft Access to deliver more accurate supplier delivery, quality, and sustainability.
- Automated the dashboards refresh workflow with Power Automate to orchestrate all dashboard updates, cutting total refresh time by over 20%.
- Optimized pre-existing code by removing and grouping steps more efficiently which helped decrease the loading time of metrics being displayed by 15%.

Database Management - System Manager

- Optimized Microsoft Access queries and macros by integrating advanced Visual Basic functions, loops, and timed triggers to automate and streamline parts list email distribution to suppliers and directors.
- Supported the rollout of a new ServiceNow database by leading the User Acceptance Testing (UAT); developing detailed test scripts tailored to nine cross-functional teams and coordinating feedback from over 30 users across multiple departments.

PROJECTS

Lead Developer | **Level Up - AI Capstone Project**   **September 2025 – Present**

- Developed a cross-platform (iOS/Android) app using React that generates resumes, cover letters, and mock interviews from job descriptions for applicant to reduce drafting time by up to 80%
- Worked in a 4-member Agile team as lead Developer, prioritizing backlogs and managing sprints to address key challenges, ensuring on-time completion of milestones and consistent stakeholder alignment.

Contest Winning Charity Website | **CHEER**   **January 2024 – April 2024**

- Designed and deployed a full-stack application using JavaScript & React for the server and HTML & CSS for frontend development for a local special needs' charity.
- Implemented secure backend logic, data storage, and a dynamic UI using core programming principles to streamline usage by users, admins, employees, and donors.
- Selected as the best site out of 50 teams by the nonprofit charity organization Cheer and leading a 4-member team to design and launch the official website.

EDUCATION

B.E.Sc. Software Engineering | **Western University**   **September 2021 – April 2026**

- **Relevant Coursework:** Data Structures and Algorithms, Database Management Systems, Intro to Machine Learning.