Pushpak Roy

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EDUCATION

Algoma University   Brampton, ON
Bachelor of Computer Science (3.89 GPA)   *June 2025*

EXPERIENCE

VR Developer   January 2025 – April 2025
Besound Studios   *Toronto, ON*
- Engineered an immersive VR experience using Unity3D, leveraging C# scripting to implement realistic character animations, resulting in fluid and natural user interactions
- Designed and implemented animation state machines and controllers to manage complex character behaviors and scene transitions
- Integrated audio-visual elements including sound effects and music synchronization to enhance user engagement
- Created multiple interactive scenes with dynamic character animations, including looping sequences and triggered events

Data Management Intern   January 2024 – May 2024
Transdev Canada   *Brampton, ON*
- Maintained the full asset registry for the new Operations & Maintenance Storage Facility in IBM Maximo, entering and validating records for the building, shop equipment, light-rail vehicles, and stop assets to enable end-to-end maintenance traceability
- Built and configured preventive-maintenance schedules and detailed inspection forms that guided Building Systems & Stops Technicians through task sequences and compliance checks
- Leveraged Excel pivot tables, lookups, and formulas to analyze inventory and calculate LRV spare-parts coverage, providing data that informed procurement and risk-mitigation decisions

PROJECTS

Budgeting AI Agent | *TypeScript, React, Convex, JavaScript, LangChain, Plaid, OpenRouter*   June 2025
- Developed a personal finance management app using React, TypeScript, and Convex for real-time backend data handling
- Integrated Plaid API for secure bank account connections and automatic transaction syncing
- Implemented AI-powered transaction categorization and financial insights to enhance user spending analysis and budgeting using LangChain

Movie Management System | *PHP, HTML, JavaScript, SQL, Gemini API, OMDb API*   July 2024
- Designed and implemented a responsive movie management system using PHP, MySQL/PostgreSQL, and Bootstrap, featuring user authentication, CRUD operations, and a clean, intuitive interface
- Containerized the application with Docker and configured CI/CD pipelines for automated deployment to Render, ensuring consistent environments from development to production
- Enhanced application performance through efficient database queries and implemented security best practices including input validation, prepared statements, and secure authentication mechanisms

Reminder App | *PHP, HTML, JavaScript, SQL*   July 2024
- Engineered a secure, responsive reminders web application using PHP, PostgreSQL, and vanilla JavaScript, featuring user authentication, CRUD operations, and session management
- Designed and implemented a robust PostgreSQL database, optimizing query performance through strategic indexing and data type standardization while enforcing referential integrity and data validation rules
- Implemented robust security measures including password hashing, prepared statements to prevent SQL injection, and account lockout after multiple failed login attempts, while optimizing database queries for improved performance

TECHNICAL SKILLS

Languages: Java, Python, C++, SQL, JavaScript, HTML/CSS, PHP, Swift, C#
Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Cursor