SUKHMEET SINGH HORA

431-388-7835   horass@myumanitoba.ca   linkedin.com/in/sukhmeet-hora

Proactive Computer Engineering student with strong communication skills and technical expertise from coursework and hands-on experience. Applied technical and interpersonal skills in roles as a Project Coordinator at New Flyer, Engineering Intern at Indus Automation, and Web Developer at Manitoba Municipal Relations to solve real-world challenges.

EDUCATION & LICENSES & CERTIFICATION

Bachelor of Science in Computer Engineering, Co-op/IIP Student
University of Manitoba Expected Date of Graduation: May 2025

- Full-Stack JavaScript Development: MongoDB, Node, and React Issued: 2025
- Foundations of User Experience (UX) Design Issued: 2024
- Tech Stewardship Practice Program Issued: 2023
- Project Management Foundations Issued: 2024

ENGINEERING EXPERIENCE

Engineering Project Coordinator Co-op Student – New Flyer   May 2024 –Present

- Participated in project management process improvements by creating, reviewing, and updating templates and processes.
- Automated capacity planning and post-mortem reporting by developing a dynamic template using VBA, Macros, Power BI, and Power Query, integrating project tracking, weekly hours burndown analysis, and interactive charts with SharePoint, enhancing efficiency and strategic decision-making.
- Designed and implemented an automated Bill of Materials (BoM) management system using VBA and Macros, streamlining installations, part updates, and automated notifications, improving part tracking accuracy and batch tasking for design support and testing commissioning.
  Developed an automated budget forecasting tool with VBA, Power BI, and Power Query, enabling real-time tracking of annual and monthly expenditures by integrating actuals and projections, enhancing financial analysis and planningFacilitated effective communication and coordination with groups.
- Learned hardware and software fundamentals including data communication, number systems, CAN protocol, J1939, and CAN FD for advanced vehicle networks.

Engineering Aide – Indus Automation May – Dec 2024, May – Sept 2022 Co-op Position

- Designed and implemented a smartphone application to remotely interface with, control setpoints, and manage outputs of a programmable logic controller using S71200/1500 PLC, AWS Services, cross platform application and documented entire project flow to help team for future initiatives.
  - Programmed the PLC to communicate with AWS IoT Broker using MQTT protocol, publishing messages and subscribing to topics.
    - Developed solution using IoT2050 built-in Node-RED to create automated workflows.
  - Created a cross-platform app to revolutionize pump/lift station management, integrating AWS for secure remote control and real-time monitoring.
    - Implemented user authentication, role-based access, dynamic UI, and multi-station oversight for pumps, levels, and flow metrics.
    - Ensured secure MQTT communication, enable push/email/SMS alerts, logged messages, and performed graphical trend analysis. Managed the backend for user content and analytics.

- Developed an automated SharePoint-integrated project management template in Excel using VBA, Macros, and Power Query, synchronizing with Outlook Events to streamline cross-departmental tracking of purchase order deadlines. Implemented status-based conditional formatting, secure cell locking, automated backups, and workflow automation, achieving an 8x efficiency boost in design and drafting processes.
- Automated Excel-based take-off sheets and integrated PLC input/output descriptions into AutoCAD Electrical (ACADE) using VBA and Macros, optimizing component insertion with Assembly Codes, time tracking, and service record generation for enhanced operational efficiency. Programmed executable .bat files to automate routine Windows tasks.
- Evaluated and implemented the feasibility of automatic ladder reference tagging of ACADE custom terminal blocks, managed show/hide component attributes project-wide, frozen all LOC layers, and implemented solutions using AutoCAD Auto LISP.

STEP- Student Web Developer/Business Analyst   **Jan 2022 - May 2022**
Manitoba Municipal Relations-Information System Branch
- Developed a SharePoint collaboration site and created HTML pages for interacting with SharePoint content. Collaborated with team members and lead developers.
- Executed operational processes including running SQL extracts, reviewing data, supervising batch jobs, and supporting operational staff.
- Authored and executed test scripts and flowcharts for applications FDM, documented user guides and system manuals, and assisted developers and business analysts.

ENGINEERING PROJECTS

- **Capstone:** Designed and Implemented an IoT-based Lake/River Depth Measurement and Monitoring System with sonar technology and cloud integration for real-time depth monitoring, GPS navigation, Path Mapping and ML model for hazard differentiation.

- **Full Stack Web Application**: Career Platform with job portal, recommendation engine and live quizzing event using MERN Stack, CI/CD pipelines, Docker containerization, regression and load testing.

- **Broom Buddy:** Engineered a technology solution for deaf curlers consisting of a single handheld controller and a broom-mountable LED ring to convey sweeping instructions using ESP- Now, power-saving modes, and a 12-bit ADC.

- **Urban Tech App:** Developed a user-friendly online store and static website with features: scrolling interface, specifications, cart functionality, checkout process, account management, product recommendations and category views.

- **Stopwatch:** Designed and implemented using DE-10 boards, FGPAs, and Verilog.

- **MusicOSet:** Designed and implemented a database encapsulating albums, artists, and songs, and created a front-end command-line interface for database access and usage.

SOFTWARE/HARDWARE AND ENGINEERING SKILLS

- **Programming:** C, C++, Python, JavaScript, Dart, HTML, SQL, AutoCAD LISP, TypeScript, VBA
- **Frameworks & Tools:** Node.js, React, Flutter, Express, J1939
- **Software:** Android Studio, NetBeans, TIA Portal V18, AutoCAD, MATLAB, SharePoint, Git, AWS, Figma, PVSG, MongoDB, Google Cloud
- **Hardware:** S7-1200/1500 PLC, IoT2050, STM32, RPi 4, Electronic Circuits
- **Project Management:** Gantt charts, team coordination, deadline tracking
- **Problem-Solving:** Workflow automation, technical troubleshooting, data analysis