

Mehar Khanna

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TECHNICAL SKILLS

Languages: Python, TypeScript, Swift, Solidity, C/C++/C#, JavaScript, Bash, SQL, PHP, Assembly (x86)
Frameworks & Tools: NextJS, React, Node.js, Flask, Django, TensorFlow, PyTorch, scikit-learn, pandas, NumPy, LaTeX, MediaPipe, Whisper OpenAI, OpenCV
Artificial Intelligence: ML / DL, neural networks, Vertex AI, Cursor, Windsurf, Replit Agent, Cline
Infrastructure: NGINX, DigitalOcean, MongoDB, Cloudflare, Conda, Ubuntu, WordPress
DevOps: Git, Bitbucket, GitHub, GitHub Actions, CI/CD, JSON, REST, Shell scripting
Cloud & APIs: AWS, Azure, OpenAI API, Gemini API, Google Apps Script, Amazon Rainforest API
Security: CAPTCHA, SQLmap, ERC20, Ghidra, Burp Suite, Wireshark, WPScan, cryptographic tools

EXPERIENCE

AI Intern: Data Analysis and Automation

July 2025 – Aug. 2025

Formative Pharma Inc.

Burlington, ON

- **Prototyping:** Developed interactive AI demos using ChatGPT to streamline Data Management and Governance workflows
- **System design:** Built prototypes including mock UIs, data pipelines, and automation algorithms for inventory management systems
- **Optimization:** Applied Naive Bayes, Dynamic Programming, and Greedy techniques to optimize sub-tasks in internal tools
- **Tool evaluation:** Assisted in evaluating platforms like Informatica, Microsoft Purview, and Collibra for enterprise data use
- **Cloud strategy:** Outlined potential integrations with AWS and Azure for long-term cloud scalability
- **Playbook:** Authored the firm's internal Data Governance and Data Management Playbook, defining best practices, tooling standards, and architectural guidelines across teams
- **Training:** Completed SOP training covering Data Governance, Quality Documentation, and Quality Manual to ensure regulatory compliance
- **Dashboard development:** Designed a 12-page Power BI dashboard integrating CAPAs, deviations, change controls, and activity trackers to centralize QA insights
- **Automation:** Automated weekly activity tracker, reducing QA task delays and improving task visibility through a live task management system
- **Documentation:** Authored comprehensive user guide and created a walkthrough video for dashboard adoption, accelerating team onboarding
- **Mental health monitoring:** Built a React-based Mental Health Bot to track employee well-being trends and generate morale insights
- **Comparative analysis:** Conducted AI-driven comparisons of GMP updates, summarizing regulatory changes for senior leadership review

Chief Technology Officer / Co-founder

Dec. 2024 – July 2025

Dizon AI Solutions

Milton, ON

- **Platform development:** Architected and implemented Tutortron, an AI-driven tutoring platform, boosting student learning efficiency by 75% by reducing mastery time from 8 to 4.6 hours based on quiz trials
- **Lesson Maker:** Developed Lesson Maker tool to generate fully formatted slide decks in under 6 minutes, cutting content creation time by 80%
- **Quizify:** Built Quizify utility to auto-generate Brightspace-compatible quizzes in CSV format, enabling one-click import of complete assessment sets
- **Activity Maker:** Created Activity Maker application allowing users to generate and share AI-powered interactive learning activities, improving engagement and comprehension
- **Full-stack integration:** Implemented end-to-end authentication, backend logic, and payment processing for seamless platform functionality

EDUCATION

Elsie MacGill Secondary School

Ontario Secondary School Diploma

Milton, ON

Sep. 2022 – Jun. 2026

- GPA: 98% overall average
- Relevant Coursework: Advanced Functions (Gr. 12), Calculus & Vectors (Gr. 12), Computer Science (Gr. 11)

PROJECTS

Selected projects shown below — more available at github.com/MeharPro

Spatial Audio Studio | *Python, Mediapipe, OpenCV*

- Developed head-tracked spatial audio system using standard webcams, enabling real-time panning, reverb, and volume control based on user movements
- Leveraged Mediapipe and OpenCV for face and hand tracking to compute spatial audio parameters with sub-20ms latency
- Ensured cross-platform compatibility on macOS and Windows via virtual audio loopback integration

PropagandAI | *React, Node.js, Python*

- Engineered PropagandAI to ingest and model propaganda datasets, demonstrating how a single-source AI can shape user opinion compared to multi-source search engines
- Trained custom bias AI models and evaluated impact by comparing outputs against peer-reviewed data, highlighting AI's susceptibility to manipulation
- Developed interactive Bias Studio for educators to dynamically adjust propaganda parameters and visualize shifts in AI-generated content

Euphoria Vault Guardian | *Solidity, JavaScript, AI*

- Designed multi-phase authentication protocol for Ethereum Sepolia testnet vaults, enforcing sequential security challenges
- Developed Solidity smart contracts and oracle integrations to validate user credentials and transaction worthiness
- Authored off-chain JavaScript orchestrator scripts to facilitate interactive user challenge phases and enforce security rules

CERTIFICATIONS AND AWARDS

Certificate of Distinction, Sir Isaac Newton Exam

University of Waterloo, Department of Physics

Placed 75th globally out of 3,808 participants

ASM Materials Olympics Winner

McMaster University

Top prize in the ASM Materials Olympics engineering competition

Canadian Computing Competition — Junior Division

University of Waterloo

Demonstrated comprehensive problem-solving skills

Specialist High Skills Major (SPE)

Elsie MacGill Secondary School

Sector partner: User Experience & Interface

Renewable Energy Certification

Ontario Energy Generation Sites

Experiential learning in renewable energy technologies and management

Elsie Leadership Award

Elsie MacGill Secondary School

Recognized for outstanding leadership in the school community

Mill Hacks Winner

Milton District High School

Developed a sustainable solution to waste management