

# Mehar Khanna

GitHub | LinkedIn | +1 647-223-1377 | imeharkhanna8@gmail.com

## 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](https://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*