

# Rishi Shah

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## EDUCATION

**London Central Secondary School**, London, ON, Canada

September 2021 - Present

- 95% average with Award of Excellence
- Accounting and Law Subject Awards

## EXPERIENCE

**Western University: Machine Learning Researcher**

April 2024 – Present

- Conducting research on adversarial attacks and their effects on machine learning models
- Developing an adversarial robust machine learning model for computer vision purposes

**Hack49 Global: Co-founder**

June 2024 – Present

- Registered Non-Profit Organization hosting a global hackathon designed to teach students coding, teamwork, and problem-solving skills
- Led logistic and outreach teams, secured partnerships, and organized events for over 950 participants

**3D Forge: Founder and CEO**

May 2024 – September 2024

- 3D modelling and printing company for croc accessories
- Won the Summer Company Award Grant from Ontario Government

**Robarts Research Institute: Student Researcher**

November 2022 – May 2024

- Utilized Vuforia and Unity to create computer vision and VR applications based on medical AI problems
- Developed neural networks to enhance computer vision for medical imaging

**SHAD Alumni at University of New Brunswick: Alumni**

July 2023

- Developed an innovative portable housing solution for emergency relief

**QSYS – Quantum School for Young Students: Alumni**

August 2024

- Selected to learn quantum physics and computing at University of Waterloo

## PROJECTS

**Mental Health Treatment Efficacy Study:**

2024

**Awards won:** 5<sup>th</sup> place at HOSA Nationals

- Conducted research examining the effectiveness of mental health treatments, analyzing over 120 patient interviews and finding a trend of over-reliance on medication without adequate therapy integration
- Proposed recommendations for a balanced approach involving both therapeutic and pharmaceutical treatments to improve mental health outcomes

**From Pixels to Precision:**

2023

**Awards won:** National Bronze; Divisional Gold; Sanofi Biogenius Award

- Designed a neural network that effectively segments surgical tools from a video of a minimally invasive surgery performed in the brain.
- Coded through Python, Keras, and MATLAB

**Piezoelectric Wind Machine:**

2022

**Awards won:** Divisional Silver; Research Western Imagination Prize

- Created an alternative to windmills as windmills hurt nearby habitats
- Used tree vibrations to create electricity via piezoelectric sensors

## COMMUNITY SERVICE

**Junior Achievement Company Program: VP of HR/VP of Finance/President**

November 2021 – Apr 2024

- Gained experience overseeing financials as VP of Finance, then managing all operations as President

**DECA Chapter Lead: Vice President, Co-President**

September 2023 – Present

- Designed executive team structure, mentored students, and led 50% more students qualifying for internationals
- Achieved a 98% score at Provincials, placing in the top 8.

**London Rotary Club/Interact Club: Vice President**

September 2019 – 2023

- Ran fundraisers in association with charitable organizations

**Programming:** Java, Python, C#, Pytorch, Keras, OpenCV, Pandas, Arduino

**Technology:** Sketchup, Blender, CURA, Unity, MS Office, Git/GitHub, Fusion 360

**Languages:** Fluent in English, Gujarati, and Hindi