Shayan Doroudiani

Mechatronics & Al Systems

Passionate and results-driven high school student with a strong foundation in robotics, programming, and engineering. Recognized nationally and internationally in robotics and mechatronics competitions with leadership roles in competitive teams.

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mecha-tek.com/

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WORK EXPERIENCE

Swim Instructor / Lifeguard / Lifesaving Instructor

City of Toronto

04/2024 - Present

Provided safety supervision, swim instruction, and lifesaving courses to students of varying ages; ensured safe aquatic environments.

Swim Coach

North York Aquatic Club

02/2025 - Present

Trained competitive youth swimmers in stroke technique, drills, and endurance routines; assisted with meet preparation and team development.

Mentor at Local STEM Programs (Volunteer)

Kavosh Robotics

Guest Organizer & Facilitator, Engineering Club (Volunteer)

Earl Haig Secondary School

EDUCATION

High School Student (Gr11)

Earl Haig Secondary School

09/2022 - Present

Courses

 Physics/Functions / Chemistry/ Computer Science / Accounting /etc Relevant Enrichment: CEMC Math Contests, OAPT Physics Contest, SIN Physics Contest

Additional Institutions:

2023-Present

Courses

AP Calculus BC (Toronto STEM School)

• Robotics (Kavosh Robotics)

• Mechatronics/ Robotics Courses (Henson Academy)

TECHNICAL SKILLS

ProgrammingPython, C++, C, JavaHardware & DesignArduino, Raspberry Pi, STM32, Jetson Nano, ESP32

Circuit & Altium Designer, EasyEDA, App Dev Android Studio, JavaFX, MIT App Industrial SolidWorks, Fusion 360

Design 3000 Works, 1 dailoit 300

AWARDS

2 x 1st Place, FIRA Robocup Canada

Autonomous Car Team & DRC Explorer U19 Team (Captain))

3rd Place, CETA Robotics Competition

Line Following Robot (School Robotics IoT challenge)

Qualified for: FIRA World Robotics Championships 2025 - Korea & RoboCup Junior International 2025

- Brazil

SHAD Canada 2025 (Admitted, declined due to competition schedule)

1st place, North Region 4 * 100 Relay (Swimming), 2nd place Cities (Toronto), 9th in Ontario (OFSAA)

1st place, North Region Tier 1 Ultimate Frisbee, 2nd place Cities (Toronto)

1st & 2nd Place, Robocup USA

Rescue Simulation League & Super Team Challenge - Advanced logic and optimization programming

Silver Medal, Toronto Science Fair

Medical Box for Medication Tracking

3rd Place, MOSSITO Robocup Innovation League

Designed TeleSwitch

Top 20%, OAPT Physics Contest

3rd in 200 Backstroke Division 1 championship

Jim Mason Squash Cup (OFSAA) Undefeated

Toronto,ON

LEADERSHIP, EXTRACURRICULARS

Captain, Kavosh Robotics Senior Team

Kavosh Robotics (kavosh.ai) 🗷

08/2024 - Present

Tasks/Achievements

Oversaw autonomous system design, AI integration, and team strategy for FIRA and Robocup

- 2 x First Place in Fira Robotic Cup
- 1 & 2nd place in RoboCup Junior US

Captain, Earl Haig Swim Team

Earl Haig SS

08/2024 - Present

Tasks/Achievements

- Managed team training plans, supported swimmer development, and led team strategy for regional meets.
- Overall 2nd in North Region

President, Robotics Club

Earl Haig Secondary School

08/2023 - Present

Tasks/Achievements

- Directed full design-build cycles and led peer training in CAD, electronics, and embedded systems.
- (This year and Next years president + 1 Year as Lead Designer)
- Participated in CETA Robotics Competition (3rd in IoT challenge)

TECHNICAL PROJECTS

DRC Explorer Robot, MedPort, Autonomous Car, Rescue Line/Maze Robot, Solar Tracker, TeleSwitch (WiFi & SMS), Coin Cabin, SwimStroke Al, QuantBot.

CERTIFICATES

- Google Digital Marketing Garage Certificate
- Lifeguard, Swim Instructor, Lifesaving Instructor, Standard First Aid & CPR-C
- Mechatronics Course Certificate (100+ Hours)
- Altium Designer PCB Design Certificate, STM32
 Microcontroller Programming