

# Sam Nadjian

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## EDUCATION

### Dalhousie University

*Bachelor of Science, Computer Science - CGPA: 3.8*

### Ontario Tech University

*Bachelor of Science, Software Engineering*

Halifax, NS, Canada

*Sept. 2022 – Expected May 2026*

Oshawa, ON, Canada

*Sept. 2021 – Aug. 2022*

## WORK EXPERIENCE

### Teaching Assistant

*Dalhousie University*

Jan. 2023 – Present

*Halifax, NS, Canada*

- Undertook responsibilities in a teacher assistance position in Software Projects (CSCI 2690).
- Planned and implemented creative projects following the school's curriculum and objectives, improving students' understanding of course material, resulting in an average of a letter grade improvement.
- Supported 45 project groups with project management including Project Charter, Scope, DOD, Stakeholder management, WBS/WBS dictionary, scrum ceremonies, risk assessment, Agile, lifecycle, and product handover.

### Software Developer

*Pars Shar Barez*

Sept. 2018 – Dec. 2020

*Tehran, Iran*

- Unified three isolated programs into one software solution utilizing Java, PHP, SQL(MySQL), and RESTful API, removing the need for paper communication digitizing employee work.
- Revised, modularized, and updated old assembly program to a modern code base removing 22 detected bugs enabling future feature implementation.
- Created standards for employee software interaction, improved efficiency, reducing operation costs by 40%.
- Designed 3 intuitive graphical user interfaces for each type employee based on use case to help employee efficiency.

## PROJECTS

### Real Time Dice Logger | *personal project*

August 2025

- Developed python-based computer vision dice recognition application capable of detecting and logging results for multiple dice types (D4–D20).
- Trained and optimized YOLOv8 object detection models to achieve high accuracy of mAP 0.91 in real-time detection under varied lighting and backgrounds
- Integrated OpenCV for capture, preprocessing (ROI cropping), and overlays around YOLOv8—delivering real-time visualization and de-duplication that reduced false positives and ensured reliable per-roll logs.
- Integrated system performance metrics (mAP scores, precision/recall) to evaluate and refine detection accuracy across dice variations.

### Fair Dice Creator | *personal project*

May 2022

- Developed a Java Windows application, calculating optimal die face positions using an electrostatic force model.
- Utilized Java libraries and frameworks to create functions that allowed for recursive generation of the dice.
- Implemented over 6 different JUnit tests for each function future-proofing development.

## OTHER EXPERIENCE

### MakerSpace Coordinator (SLA specialist)

*Emera Idea HUB, Dalhousie University*

Sept. 2023 – Present

*Halifax, NS, Canada*

- Trained over 100 students every semester on the safety protocols and applicable use cases for all MakerSpace equipment including 3D printers(FDM/SLA), laser cutters, CNC Machines, thermal formers, hand/power tools.
- Ensured student safety with 0 incidents by monitoring their work and reporting safety hazards to management.
- Managed and monitored inventory of materials and tool conditions, performing necessary repairs to ensure operational efficiency and reliability.
- Instructed 1,000+ students on manufacturing best practices, emphasizing safety and build quality.

## SKILLS & INTERESTS

**Languages & Markup:** Java, C/C++, Python, PHP, HTML/CSS, JavaScript, TypeScript, LaTeX, FXML, Pascal.

**Frameworks & Libraries:** JavaFX (Scene Builder), SFML, JUnit, OpenGL, OpenCV, Ultralytics (YOLOv8).

**Platforms, Databases & Tools:** Node.js, MySQL, Git, RESTful APIs, MVC.