Jad Menkara

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Education

Vincent Massey Secondary School **Sep 2022 - Jun 2026**
Honour Roll w/Distinction, 4.0 GPA *Windsor, ON, Canada*

Technical Skills

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, Kotlin
Software: Fusion 360, Autocad, Inventor, EasyEDA, KiCAD, Autodesk CFD, Unity, Figma, Davinci Resolve, Cura
Other: Soldering, 3D printing, Calculus/Vectors

Experience

Chapter President **May 2024 – Present**
Hack Club *Vincent Massey Secondary School*
- Currently developing lesson plans in PCB Design, CAD software, kinematics, and other engineering concepts to prepare students for hackathon competitions
- Currently designing media and merchandise through Figma design software for social media advertising

2x Canada Wide Science Fair Finalist **May 2022, May 2023**
Youthscience Canada *Fredrickton, NB | Edmonton, AB*
- Selected twice as one of 400 national finalists for the development of scientific research as a young scientist
- Received $2000 to cover travel costs and participation fees

Co-President **Aug 2023 – Present**
Massey Game Jam *Vincent Massey Secondary School*
- Hosted a competition to enrich students' understanding and love for computer science and game development
- Created media and logo design for social media advertising in Figma design software

Media Head Executive **Apr 2024 – Present**
History Club *Vincent Massey Secondary School*
- Designed 5+ posters, hoodies, logos, and other media through Canva and Figma design software for social media advertising
- Increased club retention rate by over 200% via Instagram and on-site poster advertising

Projects

Bionic Prosthesis | *Python, MicroPython, Fusion 360, EasyEDA, 3D-printing* **Jul 2023 – Mar 2024**
- Created a modular CAD design in fusion 360 via joints and master sketch techniques
- Manufactured a novel bionic arm through 3D printing and Cura Slicing software
- Designed and soldered a custom PCB carrying a maximum of 20 Amperes of current connected to an SZBK07 buck converter regulator module, a Raspberry Pi Pico Microcontroller, and multiple peripherals

Nerf Gun w/Computer Vision | *Pyfirmata, Arduino, YOLOv8, Fusion 360, 3D printing* **Oct 2023 – Present**
- Designed a carriage to house and aim a gell-blaster nerf gun via servo motors using Fusion 360
- Used a pre-trained AI model with Yolov8, Python, and Pyfirmata to track faces and aim the nerf gun accordingly

Awards

Windsor Regional Science Fair (WRSTEF) **Mar 2022 – Mar 2024**
- 3x Gold Excellence Award
- 3x Professional Engineers Ontario Award
- 3x An-Noor Inovation Award
- Sanofi Biogenius Canada Award
- Legal Focus LLP Scientific Writing Award

Canada Wide Science Fair (CWSF) **May 2023**
- Bronze Excellence Award: Top 60 projects in grades 9-10 nationally
- $3000 in university entrance scholarships

CEMC UWaterloo Math Contests **Mar 2024**
- Galois Distinction Award - Top 25% score in contest