Arish Shahab

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EDUCATION

Garth Webb Secondary School   **Oakville, Ontario, Canada**
Ontario Secondary School Diploma   *Expected Graduation: 2024*
GPA: 4.0/4.0 | **Relevant Coursework:** Calculus & Vectors, Adv. Functions, Chemistry, Biology, Physics, Computer Science, Kinesiology

Honors/Awards: Harvard University International Research Olympiad (13th Globally), Ontario DECA (10th out of 30,000 participants), University of Waterloo Sir Isaac Newton Physics Competition (1st), University of Waterloo Financial Literacy Competition (1st out of 1400 participants), University of Waterloo CCC Distinction

Extracurriculars: DECA Ontario (Executive Director), Sports Science Club (President), Muslim Student Association (Executive Prayer Coordinator), Mathstronauts STEM (Teacher Assistant), Snapology & Tarbiyah Academy (STEM Summer Camp Counselor), MYRec Basketball (Referee), Peer Tutor (Garth Webb SS)

EXPERIENCE

Trillium Health Partners (THP)   **Mississauga, Ontario, Canada**
Renal Dialysis Patient Support   *Mar. 2024 – Present*
- Supported outpatients visit at the Outpatient Speakman Dialysis Care.
- Played a crucial role in enhancing the overall hemodialysis treatment experience of patients.
- Provided not only practical assistance but also emotional support and a sense of comfort during challenging times thus improving the provision of quality of care.

University of Waterloo   **Waterloo, Ontario, Canada**
Scientific Product Researcher   *Mar. 2024 – Present*
- Conducted a comprehensive literature review on wearable biotechnologies, specializing in automated medication injectors, under Prof. George Shaker's guidance. Analyzed cutting-edge advancements, focusing on the design, efficacy, and safety of automated injectors to enhance patient care and medication adherence.
- Utilized MATLAB for data analysis and simulation tasks, furthering development of automated injectors.

HackTheWebb   **Oakville, Ontario, Canada**
Co-Founder & Programming Lead   *July. 2023 – Present*
- Organized a healthcare hackathon at Garth Webb SS, raising over $5,000 and uniting students and professionals to tackle challenges.
- Tech initiative with 60+ members focused on innovation, ensuring impactful innovation in healthcare technology.

Shoppers Drug Mart   **Oakville, Ontario, Canada**
Pharmacy Assistant   *Sept. 2022– Present*
- Support pharmacists in dispensing medications by measuring and packaging over 750+ prescriptions per shift.
- Verify prescription information, patient details, and insurance coverage.
- Input prescription data into pharmacy system and generate labels for medication containers.

Canadian School of Young Scholars Inc.   **Oakville, Ontario, Canada**
Robotics Mentor   *Jan. 2014 – Feb. 2021*
- Spearheaded the design and execution of an interactive curriculum focused on LEGO MINDSTORMS EV3 Robotics, tailored to engage and challenge students of various skill levels.
- Utilized EV3's versatile hardware and software suite to teach students about sensors (ultrasonic, touch, color, and gyro) and motors.

PROJECTS & RESEARCH

SteadyHands | ***Frameworks & Languages Used****: Java, Python, Swift, MATLAB*
- SteadyHand records, analyzes, and tracks the trembling of hands. Uses gyro sensors on iPhone and Apple Watch to detect hand tremors and suggest exercises and solutions to tremors. Integrated machine learning models to personalize the user experience.

Gene Editing for Bone Health
- Leveraging CRISPR gene editing alongside the significant LRP5 gene presents potential for scientific advancements, personalized medicine, and agricultural progress. Initiated a pilot study to evaluate the efficacy and safety of the gene-editing approach

Impact of Diet on Cognitive Function
- Explored correlations between dietary patterns and cognitive function, focusing on nutrient-specific impacts and dietary behaviors on cognitive acuity and decline through evidence-based analysis.

ADDITIONAL INFORMATION

Technical Skills:
- **Medical:** PCR, Gel Electrophoresis, Dilution, Titration, Medication Dispensing, Medication Compounding
- **Developing Languages:** Python, Java, HTML/CSS, JavaScript, Swift, MATLAB, Simulink
- **Developer Tools:** VS Code, Android Studio, MS Office, AutoCAD, SOLIDWORKS
- **Technologies / Frameworks:** Linux, GitHub, React