Dabeer Ahmad Abdul Azeez

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SUMMARY

Engineering Physics graduate with experience in project management, teaching, and cross-functional collaboration. Skilled in communicating complex ideas clearly, leading teams, and delivering user-focused solutions. Hands-on background includes building MATLAB GUIs, Python programs, and running technical workshops. Brings combined industry, research, and teaching expertise to consistently deliver reliable outcomes, with a strong interest in AI tools and hundreds of hours applying chatbots for studying, coding, and workflow optimization.

SKILLS

Technical	Programming (Python, C++, C, MATLAB, HTML/CSS/JS, JavaScript), AI Tools (ChatGPT, Gemini, Claude, Perplexity, Cursor), Microsoft Office (Word, Excel, PowerPoint, OneNote, Project, Power Automate, Bookings, Access, SharePoint, Outlook), Angular, Firebase, Autodesk Inventor, Git/GitHub, PowerShell, scientific PDE modeling software, Image processing, OOP, GUI development
Professional	Communication, Collaboration, Initiative, Quick learning, Teaching, Public speaking
Languages	English (fluent), French (proficient, DELF B2 88%), Spanish (intermediate), Tamil (conversational)

WORK EXPERIENCE

McMaster iBioMed – Hamilton, ON, Canada — Sep 2020 — Apr 2021, Sep 2023 — Apr 2025
Laboratory Teaching Assistant

- Taught weekly labs to ~45 beginner students, answering Python and Inventor questions and guiding them through new syntax, modules, and tools
- Updated shared teaching materials (slides, assignment outlines, demo code) to correct errors and improve clarity, ensuring future cohorts had more polished resources
- Created personal versions of teaching materials with analogies and examples, making labs more engaging and improving comprehension for students new to programming/CAD
- Authored a short "teaching tips" guide for new instructional TAs, documenting strategies for clear explanations and student engagement
- Wrote unit tests for hundreds of Python assignments with Pytest, demonstrating automation potential for grading and feedback
- Fostered a welcoming and engaging classroom by incorporating humor and approachability, which students noted in informal feedback and ongoing campus connections
- Coordinated with fellow TAs after each lesson to collect feedback, sharing findings with professors to refine assignments and weekly labs

L3Harris WESCAM – Waterdown, ON, Canada — May 2022 – Aug 2023
Electro-Optical Engineering Intern (Co-Op)

- Conducted vibration tests on gimbal camera systems to monitor line-of-sight jitter under varying vibration profiles, providing key data for system stability analysis
- Performed image sensor quality checks, infrared calibration, and thermal chamber boresight testing to validate optical performance across multiple conditions
- Operated turret test stations to record and evaluate video output under diverse environments, supporting end-to-end image quality assessments
- Enhanced a MATLAB GUI for jitter testing by improving ease of use, refining data saving/export workflows, and updating documentation for future interns and engineers
- Built a MATLAB Report Generator aligned with internal and aerospace standards, ensuring compliant documentation of test results
- Authored detailed schematics, circuit explanations, and lab guides to transfer 3–5 active projects to a junior co-op, accelerating their onboarding to full independence within weeks
- Coordinated daily with supervisors and compliance teams to align experiments, documentation, and reporting with internal protocols in a regulated defense environment
- Supported broader lab efficiency by maintaining meticulous records and sharing updated test guides, reducing repeat errors and easing knowledge transfer
- Operated and safeguarded $100K+ EO equipment under strict ESD procedures, achieving zero incidents across testing sessions by enforcing standardized checklists
- Built MATLAB GUIs and image-processing tools adopted by the team, accelerating workflows through UI automation

and batch processing

McMaster Health Sciences – Hamilton, ON, Canada Sep 2021 – Apr 2022
Anatomy Teaching Assistant

- Delivered weekly tutorials on skeletal, muscular, nervous, endocrine, and other systems, using presentations, questioning, and discussion to reinforce lecture material
- Assisted students in biweekly anatomy labs, handling and demonstrating with human specimens (brains, hearts, organs) and ensuring proper care and storage afterward
- Led guided dissections and answered real-time student questions, supporting hands-on learning in groups of 30–40
- Authored ~40 practice questions and co-hosted end-of-semester review sessions with other TAs, helping students prepare for final exams
- Maintained a safe and professional lab environment with zero incidents, consistently reinforcing safety protocols during dissections

McMaster Technology Services – Hamilton, ON, Canada May 2021 – Aug 2021
Project Support Assistant (Co-op)

- Co-created an M365 discovery SharePoint site that reached 16K+ unique visitors and 85K+ views in 13 weeks, providing tailored guidance for professors, students, and faculty on improving efficiency with M365 tools
- Provided Zoom production support for the CBIE regional conference (250+ attendees), coordinating 10+ staff via Microsoft Lists to deliver sessions without major incidents
- Ran user interviews, environmental scans, and analyzed 150+ survey responses to identify user needs, informing content and design guidelines adopted by the team
- Represented the student perspective in staff meetings and contributed to leadership discussions up to the CTO, highlighting student experiences and challenges with new tools
- Developed a customized PowerShell script to assign roles and private channels within Teams, reducing setup time for one professor's lab course from ~10 hours to under 10 minutes (95% faster)

Hoare Labs – Hamilton, ON, Canada Jun 2020 – Aug 2020
Undergraduate Research Assistant (Co-op)

- Co-authored a peer-reviewed paper on N95 respirator steam reprocessing, contributing a graphical abstract and literature review; left comments on drafts to support revisions and final acceptance (Journal of Hospital Infection)
- Conducted literature reviews using citation managers to consolidate external and in-house papers, creating reference briefs later used in follow-up publications
- Produced clean, organized scientific animations and graphical abstracts with Illustrator/After Effects; one abstract was accepted and published with the lab's journal article
- Designed and independently built an interactive JavaScript + Wix API database indexing 100+ lab-authored papers and patents, helping showcase the lab's output and supporting internal searches by colleagues
- Adapted to a fully remote COVID-19 environment by taking ownership of documentation and digital resources, ensuring research continuity despite limited lab access

YMCA – Mississauga, ON, Canada Sep 2017 – Aug 2019
Swim Instructor and Lifeguard

- Taught swimming classes for ages 3–16, adapting explanations, demonstrations, and games to suit skill levels and class sizes up to 18 students
- Tracked student progress through midterm reports and final evaluations, issuing pass/fail decisions for ~200+ learners over two years
- Enforced aquatic safety protocols for up to 50 patrons with a 4-guard rotation, maintaining zero major incidents and handling occasional evacuations and minor first aid cases
- Kept younger students engaged through humor, patience, and varied teaching methods (visual, kinesthetic, auditory), earning positive feedback from parents and students
- Guided volunteer instructors and new colleagues, providing feedback on teaching methods and orientation to pool safety procedures

LEADERSHIP AND OTHER EXPERIENCE

McMaster Improv – Hamilton, ON, Canada May 2022 – Apr 2025
Co-President

- Led 25+ weekly practices and 15+ executive meetings per year, onboarding new members and coordinating 5–8 leaders to deliver a cohesive program

- Managed a team of executives with the co-president, using Discord threads, task lists, and in-person check-ins to track progress while keeping the environment fun and supportive
- Tackled executive and performance team conflicts by facilitating open conversations, mediating sensitive issues, and managing role transitions — including restructuring after members stepped down or were removed
- Co-created a two-level improv curriculum (>60 pages) with a professional coach over three years, giving new coaches a structured guide to train beginners effectively
- Introduced a junior/senior team system, balancing opportunities for true beginners with a performance track that improved camaraderie and show quality
- Directed casts of 12–20 (many beginners) to stage 90-minute shows for ~100 attendees, improving performance quality via structured rehearsals and feedback
- Revamped club documentation with a Notion workspace containing hundreds of pages of yearly timelines, executive role guides, and resources, ensuring smooth knowledge transfer across years
- Organized votes among the executive team to update the club Constitution, strengthening governance and sustainability
- Drove >100% club growth and increased annual ticket revenue from $0 to $1.4K by launching marketing and a regular show cadence

McMaster Acapella – Hamilton, ON, Canada Sep 2023 – Apr 2025
Director & Baritone Singer

- Served as administrative director and project manager, organizing the director team on Microsoft Teams and managing deadlines, tasks, and rehearsal schedules
- Reviewed musical arrangements and choreography to ensure consistency and performance readiness, providing feedback and alignment across directors
- Directed the ensemble through multiple competitions, including ICCA Regional Quarterfinals (2024–25) and Queen's Acappella Competition (2023–24)
- Produced and released the group's 2025 competition set on Spotify, overseeing all aspects of production from recording to publishing (excluding arrangement)
- Performed as a baritone in 5+ shows, including solo features for audiences up to 350, strengthening stage presence and vocal blend
- Mentored junior directors by offering leadership guidance, facilitating post-rehearsal check-ins, and running transition meetings to ensure continuity for future years
- Promoted strong rehearsal preparation by modeling early mastery of music and encouraging directors to serve as role models for their sections

Ontario Engineering Competition (OEC) – Hamilton, ON, Canada Sep 2024 – Jan 2025
Director of Sponsorships

- Served as one of three Sponsorship Directors, helping raise ~$75,000 overall by conducting targeted outreach to companies and supporting sponsorship efforts
- Sent dozens of cold emails and leveraged previous sponsorship contacts to secure additional funds, strengthening continuity between competitions
- Represented the sponsorship team during competition days, coordinating with company sponsors, assisting with booth setup, and helping oversee judges when needed
- Translated the 100-page official competition rulebook into French using AI-assisted tools with manual review, cutting translation time by ~50% compared to a fully manual process

McMaster Engineering Competition (MEC) – Hamilton, ON, Canada May 2024 – Nov 2024
VP Public Relations

- Raised ~$4,000 in sponsorships (400% of initial target) through cold emailing, LinkedIn networking, and in-person outreach at career fairs, despite losing a major sponsor from the previous year
- Authored the official sponsorship package and secured support from 8+ companies, including a partnership with a local café to cover catering costs and gift card prizes
- Collaborated with the VP Finance to deliver a faculty sponsorship presentation that secured an additional ~$8,000 in funding
- Coordinated with company sponsors during the event, assisting with booth setup and building relationships on competition day
- Recruited ~25 judges for 10 competitions, engaging alumni, corporate contacts, and senior students to ensure fair and regulated competition oversight
- Recruited ~8 volunteers to support competition-day logistics, leveraging personal networks for coverage of miscellaneous tasks

- Co-coordinated operations with the VP Operations during a leadership gap, helping redistribute tasks and overseeing logistics when the Chair was unavailable on competition day
- Supported event execution for ~400 participants, a significant increase from ~275 the previous year, and sent ~30 finalists onward to the Ontario Engineering Competition (several placing highly at the provincial level)
- Revamped and authored ~100 pages of role documentation across ~15 executive positions, interviewing teammates and consolidating knowledge into a template adopted by successor teams

Volunteer – Hamilton, ON, Canada Jun 2023 – Jun 2023
FrancoFEST Volunteer

- Helped lead and collaborate with ~10 high-school volunteers to mount/dismount dozens of tents and clean dozens of garbage cans during the festival
- Communicated in English and French at the information booth to dozens of customers, volunteers, artists, partners, etc.

McMaster Improv – Hamilton, ON, Canada May 2020 – Dec 2021
Vice President Outreach

- Organized an online summit between 6 universities, garnering 40+ participants and growing club connections
- Led weekly 2-hour improv practices for groups of up to 20 with all skill levels

McMaster iBioMed – Hamilton, ON, Canada Sep 2020 – Dec 2021
Student Ambassador

- Edited and shipped ~5 one-hour podcast episodes in the debut year using Audacity; created editing SOPs and trained 2 successors to sustain production (Spotify link)
- Established the initial podcast editing workflow from scratch, introducing time-saving practices that streamlined production
- Engaged dozens of prospective students informally at recruitment events and 1:1, answering questions about the program and student life

EngHacks – Remote Jun 2021 – Jun 2021
Workshop Leader

- Delivered a 90-minute intro to web development (HTML/CSS/JS, Bootstrap) to 80+ attendees, enabling participants to ship a simple site by session end (YouTube link)

Stanford University: Code In Place – Remote Apr 2021 – May 2021
Section Leader

- Selected as a section leader for Stanford's *Code in Place* program, teaching Python fundamentals to 5 learners over 5 sessions using the official Stanford curriculum
- Guided students through exercises and assignments, improving problem-solving confidence in a remote learning environment
- Reviewed code submissions and provided targeted feedback on clarity and efficiency, reducing common errors and reinforcing best practices

McMaster Engineering Society – Hamilton, ON, Canada May 2020 – Apr 2021
IT Coordinator

- Administered the society's website backend for thousands of students and proposed improvements to email security and workflow efficiency

McMaster IT Student Committee – Hamilton, ON, Canada May 2020 – Apr 2021
Engineering Society Representative

- Designed a framework for developing students' digital skills, commended by Directory of IT Strategy & CTO
- Quoted on McMaster Daily News

StudentZ Network – Remote May 2020 – Jun 2020
Tutor (Physics, Calculus, English)

- Curated lesson plans for two students by attending to their specific strengths and weaknesses
- Delivered 4 hours of online tutoring sessions weekly
- Used Google Classroom for efficient and effective teaching and learning

McMaster Engineering – Hamilton, ON, Canada Nov 2019 – Apr 2020
Student Ambassador & Tour Guide

- Led families on 30 minute campus tours at recruitment events, engaging with dozens of prospective students

YMCA – Mississauga, ON, Canada Jun 2017 – Jun 2019
Assistant Swim Instructor

- Assisted regular swim instructors in teaching and supervising up to 12 children for 30 minute classes
- Taught older children independently under supervision
- Maintained safe pool environment by helping with setup and takedown for lessons
- Communicated with parents, participants, swim instructors, and deck supervisors to ensure safety and efficiency of swim lessons

PROJECTS

Cardiac Catheterization Testing Apparatus (Capstone Project) Sep 2024 – Apr 2025

- Designed a cardiac catheterization testing apparatus that simulates physiological pressure and flow conditions, providing Boston Scientific with a cost-effective, reproducible, and ethically responsible alternative to animal testing while accelerating device development.
- Developed and implemented a MATLAB AppDesigner GUI to control pump modes, monitor real-time pressure/flow data, run calibration routines, and export results
- Led project management efforts by creating and maintaining a detailed Gantt chart in Microsoft Project, coordinating timelines and deliverables to keep a five-member team aligned and on schedule.

PID Temperature Controller – Hamilton, ON, Canada Jan 2022 – Apr 2022

- Developed a PID control algorithm to achieve accurate and rapid temperature control of a thermoelectric cooler.
- Utilized C and MATLAB to program the MSP430 microcontroller and create a user-friendly application.
- Managed a semester-long project from prototyping to final development.

MATLAB Numerical Methods Visualizer Nov 2021 – Dec 2021

- Developed a MATLAB app using OOP principles and a GUI as a teaching tool for many numerical methods concepts learned in class

PCB Student Number Display Mar 2021 – Dec 2021

- Used k-mapping, boolean algebra, and sequential logic to design a circuit to display a looping student number on an 8-bit LED display
- Expanded past classroom expectations to a portable PCB design with 4 scrolling displays and memory storage

Ultrasonic Range Finder Circuit Nov 2021 – Dec 2021

- Used 555 timers, operational amplifiers, counters, and speakers to translate an ultrasonic time of flight to a distance on a 7-segment display
- Created circuit diagrams and a working model on MultiSim

Virtrolio - Yearbook Signing Web App Apr 2020 – Jun 2021

- Created Virtrolio, a live Angular/Firebase virtual yearbook web app which reached 350+ users
- Worked remotely with a team of 8, featured on Mississauga news website
- Developed a Python script to automate updating the site changelog

FEM Rocket Heat & Dynamics Model Mar 2021 – Apr 2021

- Used Python to automate an FEM solver and optimize input parameters
- Modelled real differential equations for solid-fuel rocket travel and heat flow

Research Publications Database Jun 2020 – Aug 2020

- Developed interactive online database of over 100 research papers and patents using asynchronous Javascript and Wix API

Baby Orientation Monitor Jan 2020 – Jun 2020

- Developed a multithreaded Python program for a Raspberry Pi to interpret orientation sensor data and display information to an interactive GUI

EDUCATION

McMaster University – Hamilton, ON, Canada Sep 2019 – Apr 2025
Engineering Physics (B.Eng., GPA 3.95/4.00)

Dean's List (2020–2022); co-op placement 2023; GPA equivalent to Dean's List 2024 (insufficient units); Provost Honour Roll (all A+) 2025

Relevant Coursework: *Biomedical Engineering Design Projects (I/II/III), Biomedical Signals & Systems, Embedded Microcontrollers, Data Structures / Algorithms, Numerical Methods for Engineering, Digital and Analog Circuits, Circuits with Non-Linear and Active Components, Statistical Analysis, Engineering Economics*

AWARDS

University (Senate) Scholarship Jan 2025
Awarded an $800 scholarship, one of 300 provided annually to undergraduate students who achieve outstanding academic standing.

Jones Family Academic Grant Jan 2025
Awarded the sole yearly $5,000 grant in the Faculty of Engineering, which recognizes students for strong academic achievement and demonstrated financial need.

H.L. Hooker Scholarship Jan 2025
Awarded a $1,500 scholarship, one of 80 provided annually to undergraduate students who achieve outstanding academic standing.

NSERC Undergraduate Research Award May 2020
Awarded a highly competitive $6,000 NSERC Undergraduate Research Award to conduct a full-time research project with a faculty supervisor, underscoring strong academic standing and research potential.

SAG General Bursary Sep 2019
Awarded a general bursary to support educational costs, demonstrating a strong commitment to academic pursuits.

President's Award Sep 2019
Awarded $2,500 for a prestigious entrance scholarship that recognizes academic excellence and a final high school admission average of 95% or greater.

University of Toronto National Biology Scholar 2019 Jan 2019
Scored top 5% in Canada on the University of Toronto National Biology Competition

PUBLICATIONS

Abdul-Azeez, Dabeer. *12 Things I Learned By 21: and how I'd explain them to my 14-year-old self*. Self-published, January 9, 2023. Link to publication.

McMaster University. "McMaster student email is changing this summer – here's what you need to know." *McMaster University*, March 18, 2021. Link to publication.

Hoare, T. R., et al. "N95 Filtering Facepiece Respirator Reprocessing by Steam: A Large-Scale in-Hospital Implementation Study." *Journal of Hospital Infection,* 2020. Link to publication

Martin-Robbins, Karen. "'Something to cherish': Former Mississauga students launch online yearbook." *Mississauga News*, July 10, 2020. Link to publication.