

Amin Abdolkhani

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Skills

- Laboratory** Synthetic biology and chemistry laboratory tools, bacterial and mammalian cell culturing
- Procedures** Viability assays, flow cytometry, fluorescence microscopy, immunomagnetic cell separation, transfection, gel-electrophoresis
- Programming** R, Java, MATLAB, Python, ImageJ/Fiji, scikit learn, edgeR, matplotlib, seaborn, \TeX , ggplot2

Projects

Low Cost Medical Grade Microscope

BIOMEDICAL ENGINEERING DESIGN II

January 2022 - April 2022

- Worked for client to provide a solution for the unaffordability of medical grade microscopes for low to middle income countries
- Consulted stakeholders and literature to fully understand the problem
- Designed and created a 3D printed microscope to accurately diagnose sickle-cell anemia with a cost of **\$90 CAD** compared to the standard of **\$2000 CAD**.

C2C12 Myocyte Experiment Design Project

CELLULAR BIOENGINEERING: LABORATORY AND DESIGN

January 2022 - April 2022

- Worked with a team to design and execute an experiment to understand the effect of solutions of calcium chloride with different concentrations on murine myocytes
- Used DAPI staining protocol on the already GFP expressing cells that we cultured to fluorescently image and analyze our results
- Found a connection between calcium chloride concentration and cell adherence which was confirmed through literature

2021 Undergraduate Big Data Challenge

STEM FELLOWSHIP

June 2021

- Worked in a team to leverage logistic regression to detect false twitter messages as a means to prevent the spread of COVID-19 misinformation
- Developed an abstract which was published in the 2021 STEM Fellowship UnBDC journal

Education

The University of British Columbia

Vancouver, Canada

BACHELOR OF APPLIED SCIENCE IN BIOMEDICAL ENGINEERING WITH A CONCENTRATION IN CELLULAR ENGINEERING

September 2019 - May 2023

- 89%** Cumulative GPA and Trek Excellence Scholar, awarded to **top 5%** of undergraduate year, faculty and school

Experience

The University of British Columbia

Vancouver, Canada

TEACHING ASSISTANT FOR SOFTWARE CONSTRUCTION I

November 2021 - December 2021

- Coordinated and organized office hours for students to clarify topics in object oriented programming. Was met with strong positive feedback from students and a high student return rate.
- Carefully analyzed student coding projects to assign grades and provide constructive feedback on their programming, style and specifications. Following feedback, my assigned student groups' project grades increased an average of **39%** over the course of the semester.

Geering UP UBC

Vancouver, Canada

INSTRUCTOR

January 2020 - April 2021

- Communicated with co-instructor and curriculum manager to create a fun, engaging and inspiring STEM experience for campers
- Clearly delivered simplified explanations of scientific phenomena and current technology to campers
- Provided easy to follow instructions for campers to create crafts relating to the lesson of the day

Extracurricular

Biomedical Engineering Student Association

The University of British Columbia

SECRETARY AND CLUB-ROOM MANAGER

September 2021 - May 2022

- Coordinate with all council members to organize council meetings
- Efficiently managed meeting agenda and time to ensure all pressing topics are discussed accordingly
- Used independent judgement to make purchases for the club-room to ensure needs of the student body are met
- Hosted events in the club-room to lift spirits of the student body and help relieve some stress from academics

AMS Autism Associates

The University of British Columbia

EXECUTIVE MEMBER

January 2020 - Current

- Plan and organize events to inspire autistic children to pursue arts, music or STEM
- Consistently practice guitar and viola to play at AMS autism club events
- Guide weekly tutoring sessions with an autistic child to help improve their communication ability

Hobbies

Nature Love to go hiking and explore nature around Vancouver, go camping and swim in lakes or the ocean

Music Practice the guitar and viola to relieve stress, relax and spend time with people