

Arvin Zaker

arv.zaker@gmail.com | (613) 614-9254 | [GitHub](#) |

EDUCATION

University of Ottawa

Honours Bachelor of Science (H.BSc) in Translational and Molecular Medicine (CGPA: 9.96/10)

Sep 2019 - Apr 2023 (Expected)

Ottawa, ON

Cardiff Sixth Form College

General Certificate of Education Advanced Subsidiary Level (Avg: 100%)

Sep 2018 - Jun 2019

Cardiff, UK

SKILLS

- **Programming languages:** R, Python, Bash
- **Software:** ImageJ, Imiris, Microsoft Office Suite
- **Lab techniques:** Cell-based assays, environmental sampling, phage extraction and amplification, fluorescent staining and imaging, electrophysiological recordings, PCR, western blot
- **Languages:** English, Persian
- **Operating systems:** Linux, Windows
- **Other:** Hardware assembly and troubleshooting

WORK EXPERIENCE

Bioinformatics Researcher

University of Ottawa

May 2021 - Present

Ottawa, ON

- Supervisor: Dr. Arvind Mer
- Developing computation tools for analyzing cancer drug response
- Survival analysis of novel DNA repair complexes
- Implementing machine learning algorithms to improve response detection
- Open source package development and developing analysis pipelines

Undergraduate Trainee - Laboratory rotations

University of Ottawa

Jan 2021 - Apr 2021

Ottawa, ON

- Supervisor: Dr. Arvind Mer
- Utilized the R programming language in genomic data analysis
- Optimized programs analysis of large datasets
- Data extraction and processing from TCGA, METABIRC, and Cbioportal databases
- Correlational study between cancer gene biomarkers and drug response

Undergraduate Trainee - SEA-PHAGES program

University of Ottawa

Sep 2021 - Dec 2021

Ottawa, ON

- Supervisor: Dr. Adam Rudner
- Performed environmental sampling and phage extraction techniques
- Utilized cell-based assays for characterization of the phage
- Performed DNA extraction and genomic analysis via gel electrophoresis
- Used Python and ImageJ to analyze the restriction digest pattern of phages

Research Assistant - UROP program

University of Ottawa

Nov 2020 - Jul 2022

Ottawa, ON

- Supervisor: Dr. Jean-Marc Renaud
- Designing experiments and setting up research equipment for data collection
- Performing experiments on mouse muscles using electrophysiological equipment
- Performing antibody staining, fluorescent imaging, and analysis of muscle tissue in the Imiris program

Family Visitor and Program Assistant (Volunteer)

Garry J Armstrong Long Term Care Centre

Feb 2020 - May 2020

Ottawa, ON

- Communicated effectively with residents
- Aided residents to perform group activities
- Channeled residents' questions to the nursing staff

Stock Manager and Coordinator (Volunteer)*Scope Charity Shop*

Sep 2018 - Jun 2019

Cardiff, UK

- Communicated with a team of volunteers and employees
- Created accounting records to manage incoming donations
- Priced items during sales events
- Rearranged store merchandise to ensure customer satisfaction

Sales Associate (Volunteer)*Tenovus Cancer Care Charity Shop*

Sep 2018 - Jun 2019

Cardiff, UK

- Coordinated with a team of volunteers
- Managed sales and provided excellent customer service
- Aided in designing marketing campaigns to promote the store's merchandise
- Tracked customer donations and returns

VOLUNTEER EXPERIENCE

Lets Talk Science Presenter*University of Ottawa*

Jan 2021 - Present

*Ottawa, ON***Founder of the University of Ottawa Canadians Sharing Locally and Globally***University of Ottawa Canadians Sharing Locally and Globally*

Dec 2020 - Present

*Ottawa, ON***Volunteer Coordinator at Best Buddies club***Best Buddies club*

Sep 2020 - Present

*Ottawa, ON***Founder and Coordinator of Hands on Health Magazine***Interprofessional Health Association (IPHA) club*

Jun 2020 - Present

*Ottawa, ON***Childcare work experience***Cylch Meithrin Trelai Child Care Center*

Apr 2019

*Cardiff, UK***Fundraising event participant***Allameh Helli 3 High School*

Jan 2016

*Tehran, IR***AWARDS & ACHIEVEMENTS**

UROP Scholarship, University of Ottawa (\$1000)

Dec 2020 - Apr 2021

Merit Scholarship, University of Ottawa (\$1000 per term)

Sep 2020 - Present

Admission Scholarship, University of Ottawa (\$3000)

Sep 2019 - Apr 2020

Dean's Honour List, University of Ottawa (awarded each term)

Sep 2019 - Present

Academic Excellence Scholarship, Cardiff Sixth Form College (\$14000)

Sep 2018 - Jun 2019

POSTERS & PRESENTATIONS

Seminar Presentation "Analysis of Drug Response in Patient-Derived Xenograph"*Faculty of Medicine, University of Ottawa*

Apr 2022

*Ottawa, ON***Poster and Presentation "Analysis of Drug Response in Patient-Derived Xenograph"***Faculty of Medicine, University of Ottawa*

Feb 2022

*Ottawa, ON***Poster and Presentation "Discovery and Characterization of Bacteriophage Arzan"***Faculty of Medicine, University of Ottawa*

Dec 2021

*Ottawa, ON***Poster "Role of Adenosine Receptors on mice skeletal muscle fatigue kinetics"***Faculty of Medicine, University of Ottawa*

Apr 2021

*Ottawa, ON***Poster "Insulin Pump Belt Manufacturing"***Allameh Helli 3 Exceptional Talent School*

May 2018

*Tehran, IR***Poster "Jack-knife Construction Crane Optimization"***Allameh Helli 3 Exceptional Talent School*

May 2017

Tehran, IR