

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, Imlaris, Microsoft Office Suite
- **Bioinformatic skills:** Transcriptomic and genomic analysis, bioinformatic pipeline development
- **Lab techniques:** Cell-based assays, phage extraction and amplification, fluorescent staining and imaging, electrophysiological recordings, PCR, western blot
- **Operating systems:** Linux, Windows

RESEARCH EXPERIENCE

Bioinformatics Researcher - Honours

University of Ottawa

Sep 2021 - Present

Ottawa, ON

- Supervisor: Dr. Arvind Mer
- Creating computation tools for analyzing cancer drug response
- Developing novel *in vivo* drug response quantification metrics
- Correlational study between cancer gene biomarkers and drug response
- Open source package development and developing analysis pipelines

Undergraduate Trainee - Laboratory rotations & TST program

University of Ottawa

Jan 2021 - Sep 2021

Ottawa, ON

- Supervisor: Dr. Arvind Mer
- Utilized the R programming language in genomic and transcriptomic data analysis
- Cancer phenotype and survival analysis of novel DNA repair complexes
- Data extraction and processing from Pan-cancer databases

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 Imlaris program

WORK EXPERIENCE

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

AWARDS & ACHIEVEMENTS

TMM Summer Training (TST) program, University of Ottawa (\$8200)

May 2022 - Aug 2022

Work in Biomedical Research (WiBR) Scholarship, University of Ottawa (\$3500)

May 2022 - Aug 2022

UROP Scholarship, University of Ottawa (\$1000)

Dec 2020 - Apr 2021

Dean's Honour List & Merit Scholarship, University of Ottawa (\$1000 per term)

Sep 2019 - Present

Admission Scholarship, University of Ottawa (\$3000)

Sep 2019 - Apr 2020

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

Sep 2018 - Jun 2019

POSTERS & PRESENTATIONS

Poster and Seminar Presentation "Analysis of Drug Response in Patient-Derived Xenograph"

Faculty of Medicine, University of Ottawa

Feb & Sep 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