

# Arvin Zaker

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## EDUCATION

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<b>University of Ottawa</b> <i>Honours Bachelor of Science (H.BSc) in Translational and Molecular Medicine (CGPA: 9.96/10)</i>	Sep 2019 - Apr 2023 (Expected) Ottawa, ON
<b>Cardiff Sixth Form College</b> <i>General Certificate of Education Advanced Subsidiary Level (Avg: 100%)</i>	Sep 2018 - Jun 2019 Cardiff, UK

## AWARDS & ACHIEVEMENTS

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<b>TMM Summer Training (TST) program</b> , University of Ottawa (\$8200)	May 2022 - Aug 2022
<b>Work in Biomedical Research (WiBR) Scholarship</b> , University of Ottawa (\$3500)	May 2022 - Aug 2022
<b>UROP Scholarship</b> , University of Ottawa (\$1000)	Dec 2020 - Apr 2021
<b>Dean's Honour List &amp; Merit Scholarship</b> , University of Ottawa (\$1000 per term)	Sep 2019 - Present
<b>Admission Scholarship</b> , University of Ottawa (\$3000)	Sep 2019 - Apr 2020
<b>Academic Excellence Scholarship</b> , Cardiff Sixth Form College (\$14000)	Sep 2018 - Jun 2019

## POSTERS & PRESENTATIONS

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<b>Poster and Seminar Presentation "Analysis of Drug Response in Patient-Derived Xenograph"</b> <i>Faculty of Medicine, University of Ottawa</i>	Feb & Sep 2022 Ottawa, ON
<b>Poster and Presentation "Discovery and Characterization of Bacteriophage Arzan"</b> <i>Faculty of Medicine, University of Ottawa</i>	Dec 2021 Ottawa, ON
<b>Poster "Role of Adenosine Receptors on mice skeletal muscle fatigue kinetics"</b> <i>Faculty of Medicine, University of Ottawa</i>	Apr 2021 Ottawa, ON

## SKILLS

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- **Programming languages:** R, Python, Bash
- **Software:** ImageJ, Imiris, 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

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<b>Bioinformatics Researcher - Honours</b> <i>University of Ottawa</i>	Sep 2021 - Present Ottawa, ON
<ul style="list-style-type: none"><li>• Supervisor: Dr. Arvind Mer</li><li>• Creating computation tools for analyzing cancer drug response</li><li>• Developing novel <i>in vivo</i> drug response quantification metrics</li><li>• Correlational study between cancer gene biomarkers and drug response</li><li>• Open source package development and developing analysis pipelines</li></ul>	
<b>Undergraduate Trainee - Laboratory rotations &amp; TST program</b> <i>University of Ottawa</i>	Jan 2021 - Sep 2021 Ottawa, ON
<ul style="list-style-type: none"><li>• Supervisor: Dr. Arvind Mer</li><li>• Utilized the R programming language in genomic and transcriptomic data analysis</li><li>• Cancer phenotype and survival analysis of novel DNA repair complexes</li><li>• Data extraction and processing from Pan-cancer databases</li></ul>	

**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

**WORK EXPERIENCE**

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**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**

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**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***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*