

Arvin Zaker

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EDUCATION

University of Ottawa

Honours Bachelor of Science (H.BSc) in Translational and Molecular Medicine (CGPA: 9.98/10)

Sep 2019 - Apr 2023

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
- **Bioinformatic skills:** Transcriptomic and genomic analysis, bioinformatic pipeline development
- **Operation systems:** Linux, Windows
- **Lab techniques:** phage extraction and amplification, fluorescent imaging, electrophysiological recordings

WORK EXPERIENCE

Bioinformatics Researcher

University of Ottawa

Sep 2022 - Present

Ottawa, ON

- 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

Patient Care Coordinator & Receptionist

Chadha Medical Clinic

Sep 2022 - June 2023

Ottawa, ON

- Assisted with appointment scheduling, referrals, and testing coordination to 30+ patients weekly
- Collaborated with the medical team and to address patients' unique needs and backgrounds.
- Ensuring timely follow-ups and patient satisfaction in a fast-paced environment

Undergraduate Trainee - Laboratory rotations & TST program

University of Ottawa

Jan 2022 - Aug 2022

Ottawa, ON

- 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
- Utilizing text mining algorithms for biomarker discovery

Undergraduate Trainee - SEA-PHAGES program

University of Ottawa

Sep 2021 - Dec 2021

Ottawa, ON

- Performed environmental sampling and phage extraction techniques
- Performed DNA extraction and genomic analysis via gel electrophoresis
- Used Python and ImageJ to analyze the restriction digest pattern of phages
- Phage discovery and characterization (Arzan and Khorshid)

Research Assistant - UROP program

University of Ottawa

Nov 2020 - Jul 2022

Ottawa, ON

- 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

Volunteer Sales & Stock Coordinator

Sep 2018 - Jun 2019

Scope Charity Shop & Tenovus Cancer Care Charity Shop

Cardiff, UK

- Collaborated with volunteer teams across two charity shops
- Managed sales, customer service, and donation tracking
- Created accounting records and priced items for sales events
- Assisted in developing marketing campaigns for store promotion
- Rearranged store merchandise to enhance customer experience

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 & Co-Chair 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

PUBLICATIONS

Large-scale phenogenomic analysis of human cancers uncovers frequent alterations affecting SMC5/6 complex components in breast cancer

(under revision in NAR Cancer)

Shamayita Roy, Arvin Zaker, Arvind Mer & Damien D'Amours

Text-Mining Based Feature Selection for Anticancer Drug Response Prediction

(submitted to Brief. Bioinform.)

Grace Wu, Arvin Zaker, Shivanshi Tripathi, Arvind Mer

Comprehensive analysis of drug response metrics in patient-derived xenografts

(in preperation)

Arvin Zaker, Arvind Mer

AWARDS & ACHIEVEMENTS

NSERC - Undergraduate Student Research Awards (USRA) (\$7500)

May 2023 - Aug 2023

TMM Summer Training & Work in Biomedical Research Scholarship (\$8200)

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