Arvin Zaker

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SKILLS

- **Programming languages**: R, Python, Bash
- **Software**: ImageJ, Imiris, Microsoft Office Suite
- **Bioinformatic skills**: Transcriptomic and genomic analysis, bioinformatic pipeline development
- **Operating systems:** Linux, Windows
- **Lab techniques**: phage extraction and amplification, fluorescent imaging, electrophysiological recordings

WORK EXPERIENCE

Bioinformatics Researcher Sep 2022 - Present
University of Ottawa *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 Sep 2022 - June 2023
Chadha Medical Clinic *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 Jan 2022 - Aug 2022
University of Ottawa *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 Sep 2021 - Apr 2022
University of Ottawa *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 Nov 2020 - Jul 2022
University of Ottawa *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) Feb 2020 - May 2020
Garry J Armstrong Long Term Care Centre *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 Jan 2021 - Present
University of Ottawa *Ottawa, ON*

Founder of the University of Ottawa Canadians Sharing Locally and Globally Dec 2020 - Present
University of Ottawa Canadians Sharing Locally and Globally *Ottawa, ON*

Volunteer Coordinator & Co-Chair at Best Buddies club Sep 2020 - Present
Best Buddies club *Ottawa, ON*

Founder and Coordinator of Hands on Health Magazine Jun 2020 - Present
Interprofessional Health Association (IPHA) club *Ottawa, ON*

Childcare work experience Apr 2019
Cylch Meithrin Trelai Child Care Center *Cardiff, UK*

Fundraising event participant Jan 2016
Allameh Helli 3 High School *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

EDUCATION

University of Ottawa Sep 2019 - Apr 2023
Honours Bachelor of Science (H.BSc) in Translational and Molecular Medicine (CGPA: 9.98/10) *Ottawa, ON*

Cardiff Sixth Form College Sep 2018 - Jun 2019
General Certificate of Education Advanced Subsidiary Level (Avg: 100%) *Cardiff, UK*