RESUME

Xiao Fan Ding, MSc

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SUMMARY

Xiao Fan is an experienced researcher with a strong foundation in imaging modalities and non-destructive evaluation. He has demonstrated ability to collaborate across a wide range of disciplines, including pharmaceuticals, dentistry, agriculture, and tissue engineering among others. He is a lifelong learner who eagerly seeks knowledge from others and wholeheartedly shares in their passions.

Technical Skills: Microsoft Office | PyTorch | TensorFlow | Keras | MATLAB | Python | Bash | HPC | Adobe Creative Suite | SolidWorks | 3D Rendering | 3D Printing | FEA Modeling | Medical Devices | ISO/ASTM Standards | Bacterial Culturing | Aseptic Technique | GLP

Soft Skills: Communication | Academic Writing | Literature Review | Teaching | Multidisciplinary Collaboration | Adaptability | Multitasking | Time Management | Detail Oriented

EDUCATION

2017 – 2019 **MSc Medical Biophysics,** The University of Western Ontario
2013 – 2017 **BSc Hons Biology,** Ryerson University

PROFESSIONAL EXPEREINCE

Research Associate at Canadian Light Source Inc. (Dec 2021 – Dec 2023)
- Worked with optical equipment (cameras, lenses, scintillators) and sample stages (goniometers, step motors) to capture processes using synchrotron radiation in the X-ray range.
- Performed literature review and helped designed experimental methods and SOPs for time-resolved, laminographic, helical acquisition, and multi-detector studies.
- Experienced using tensorflow to develop machine learning models for image segmentation and image artefact reduction.
- Helped review and submit research proposals for obtaining beamtime at the CLS.

Research Assistant at the University of Saskatchewan (Sep 2020 – Dec 2023)
- Synthesizing and 3D printing tissue scaffolds from natural polymers e.g., gelatin, alginate, and fibrin.
- Writing animal usage protocol (AUP) and stand operating procedure (SOP) for animal experiments.
- Trained in animal model experiments using rats e.g., acclimation, surgery, post-op monitoring, and euthanasia.

Graduate Research Assistant at The University of Western Ontario (Sep 2017 – Dec 2019)
- Numerical modeling of materials interactions with the magnetic resonance (MR) environment in clinical setting.
- 3D modeling implantable medical devices to analyse the safety in MR environment.
- Analysis of measurement error and uncertainty in standard test methods, e.g., ISO and ASTM standards.

Teaching Assistant at The University of Western Ontario (Sep 2017 – Apr 2019)
- Ran the first-year physics labs of 30-40 student classes (10 hours per week).
- Gave lectures and marked student reports for students in performing university level physics experiments.
- Performed demonstrations to prospective high school students during open house events.

Undergraduate Research Assistant at Ryerson University (Sep 2016 – Apr 2017)
- Experimental design for bacterial culturing using aseptic techniques, good laboratory practices.
- Media preparation, autoclaving equipment, and working in biosafe laboratory.

Summer Intern at OxiLight Inc. (Apr 2016 – Aug 2016)
- Prepared and presented a pitch for a grant application to the Think Research Corporation.