Frederick Goh

CONTACT

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WORK EXPERIENCE

Focal Healthcare | Toronto, ON

Clinical Product Specialist | Nov 2019 – Present

Lead training of our MRI/ultrasound fusion biopsy device to physicians and nurses and provide hands-on support during biopsy procedures. Conduct user research to gain a better understanding of clinical techniques and interactions with our product.

Test Engineering Lead | Jul 2018 – Nov 2019

Managed defect tracking, regression testing, and verification & validation testing. Implemented systems for test case management, test coverage, and requirement traceability. Created mockups for feature requests and product requirements. Planned and executed formative usability assessments.

University of Waterloo | Waterloo, ON

Anatomy Teaching Assistant | Jan 2015 – Apr 2015, Jan 2016 – Jul 2016

Facilitated engaging, hands-on, cadaveric learning experiences and taught key anatomical concepts using biomechanical applications to spark interest.

Biomechanics Teaching Assistant | Sep 2014 – Dec 2014

Guided students through their exploratory lab experiences and taught data collection and signal processing techniques. Evaluated and provided personalized feedback on lab reports and examinations.

Baylis Medical Company | Mississauga, ON

R&D Endovascular Engineering Assistant | Jan 2013 – Apr 2013

Designed, prototyped, and tested various guide wire concepts and components, including a project using thermal mapping to assess the application of ceramic shields. Developed a manufacturing protocol for a dilator catheter device and trained production staff.

Sunnybrook Health Sciences Centre | Toronto, ON

Medical Device Design Assistant | May 2012 – Aug 2012

Designed and developed a test jig and a Labview routine to assess rotational distortion in catheter devices. Used an engineering design approach to generate designs and create CAD models for a transradial catheterization support table based on set requirements and constraints.

EXTRACURRICULAR

University of Waterloo Badminton Club | Waterloo, ON

Director | May 2010 – Jul 2017

Led the executive team by continually improving member and exec experiences with new event ideas and service design to address traffic during session. Grew the club brand and online presence through social media and the website redesign project. Increased exec engagement and retention by 18% using gamification mechanics in our rewards system.

EDUCATION

Biomechanics
University of Waterloo | 2014 – 2017
Master of Science, Kinesiology

Mechanical Engineering
University of Waterloo | 2009 – 2014
Bachelor of Applied Science, Honours, Coop (with Distinction)

SKILLS

Design: Figma, Sketch, InVision, HTML, CSS

Data Collection/Processing: MATLAB, NI Labview

Statistical Analysis: Python (Jupyter), RStudio

Mechanical: Solidworks, Mill, Lathe, Bandsaw, Drill Press

Sensors: EMG, Motion Capture, Force and Pressure Sensor, Ultrasound

PROJECTS

Wearable Hip Protectors: Validation of Novel Test System

Master Thesis | Sep 2014 – Jul 2017

Designed, prototyped, developed, and validated a drop tower impact test system alongside a mechanically biofidelic hip model. This system simulates falls and utilizes a series of force and pressure sensors to assess the effectiveness of various hip protector interventions. 3D printed a mold and devised a foam molding protocol to consistently produce the soft tissue component.

Ergonomic Lateral Patient Transfer Device

Fourth Year Design Project | May 2013 – Apr 2014

Designed and prototyped a solution to help nurses reduce repetitive strain injuries when lifting a patient from a bed to a gurney. Led project management by communicating with stakeholders and presenting deliverables. Performed on-site user acceptance testing.