



PRACTICE AREAS

- **Collision Reconstruction**
- **Collision Injury Biomechanics**
- **Occupant Kinematics**
- **Fraud Assessment**
- **Pedestrian Collisions**
- **Bicycle Collisions**
- **Slip, Trip & Fall Biomechanics**
- **Staircase Assessment**
- **Gait Analysis**
- **Sports Injuries**
- **Workplace Ergonomics**

ACADEMIC BACKGROUND

Bachelor of Biomedical Engineering, University of Guelph

- Undergraduate courses in:
 - Engineering Design
 - Physics
 - Statics and Dynamics
 - Mechanics and Biomechanics
 - Materials and Biomaterials
 - Physiology and Anatomy
 - Clinical Biomechanics
 - Occupational Biomechanics and Ergonomics

ADDITIONAL COURSES, TRAINING & AWARDS

- U.S. Department of Defense/NIST/ASTM “Biomechanics & Footwear Standards” Webinar, 2018
- “Drug Recognition Evaluator Program & Cannabis” webinar, CARSP, 2017
- “Persuasive Communication” webinar, Experts.com, 2017
- “Features and Accuracy of EDR Downloads”, Advantage Forensics in-house training workshop, 2017
- Tire Forensics & Accident Reconstruction Seminar, CATAIR, Toronto Police College, 2017
- Slips, Trips & Falls International Conference, Toronto Rehabilitation Institute, Toronto, 2017
- “Advanced Collision Reconstruction with CDR Applications”, CATAIR, Durham, 2016



- Collision Reconstruction Journal Review Series, Advantage Forensics in-house seminar, Toronto, 2016
- “Examining and Cross-examining Experts: Winning Strategies, Trends and Solutions”, The Advocates’ Society, 2016
- “PC Crash 10.0 Assumptions & Inputs” workshop, Advantage Forensics in-house training, Toronto, 2016
- “Crush Energy Analysis” workshop, Advantage Forensics in-house training, Toronto, 2015
- “PC Crash 10.0 Simulation & Analysis” workshop, Advantage Forensics in-house training, Toronto, 2015
- NLS Certified Lifeguard, 2009 to 2011
- Certified First Aid, 2009 to 2011
- Bronze Cross, 2009 to 2011
- Ice Hockey Coaching Assistant, Waterloo Wolves and St. David CSS, 2011 to 2015

EMPLOYMENT HISTORY

Advantage Forensics Inc., Toronto

Associate, July 2015 to present

Member of collision reconstruction team and biomechanics team

University of Waterloo, Waterloo

Research Engineering Assistant, May 2013 to August 2014

Data analysis, experimental setup, and research documentation for stroke rehabilitation methodology study as well experimental setup and analysis of various other studies in biomechanics and neurology

Ice Hockey Research Group, McGill University, Montreal

Research Engineering Assistant, May 2014 to June 2014

Lead researcher for ice hockey concussion study

PROFESSIONAL SOCIETIES & ASSOCIATIONS

Canadian Society for Biomechanics, member since 2016

Canadian Association of Technical Accident Investigators & Reconstructionists, member since 2016

PAPERS, PUBLICATIONS& PROJECTS

- "Mobilistep: A Dynamic Walking Rehabilitation Device", Undergraduate Capstone project, University of Guelph, 2015



- "Athotrack: A Wearable Biometric Data Collector for Athletes with Real-Time Impact Monitoring", Undergraduate project, University of Guelph, 2015
- "3D Bioprinting of Vascular Tissue", Undergraduate research project, University of Guelph, 2015
- "Gender Differences of Ground Reaction Forces Upon Impact During Drop Landing With and Without An Ankle Brace", Undergraduate project, University of Guelph, 2015
- "Ergonomic Assessment of Longo's Butchery", Undergraduate project, University of Guelph, 2015
- "Quantification and Comparison of Selected Footwear on Lower Body Kinematics and Kinetics", Undergraduate project, University of Guelph, 2014
- "Terrain in Motion: A Retrofitted Treadmill Rehabilitation Device", Undergraduate project, University of Guelph, 2014
- Private biomechanical product assessment of concussion reduction in hockey, Ice Hockey Research Group, McGill University, 2014
- "Water Safety Plan: Whycocomagh", Undergraduate project, University of Guelph, 2014
- "Tissue Engineered Skin", Undergraduate research project, University of Guelph, 2013
- "How the Structure and Materials Used in a Total Knee Replacement Mimic the Anatomy and Function of a Normal Functioning Knee Joint", Undergraduate research report, University of Guelph, 2013
- "Interdisciplinary Analysis of Bee Stings", Undergraduate research report, University of Guelph, 2013
- "Interdisciplinary Analysis of Cholera", Undergraduate research report, University of Guelph, 2012

LECTURES & PRESENTATIONS

- Guest lecturer: "Forensic Biomechanics", MIE439 Engineering Course, University of Toronto, 2018
- Panel presenter: "Pushing the New Boundaries of Slip and Fall Investigations: Pilot Results from Comparative COF Testing of Silastic Test Sensors", UHN Slips, Trips, and Falls International Conference, 2017
- Guest lecturer: "Forensics of Human Factors & Ergonomics", MIE 345 Engineering Undergraduate Course, University of Toronto, 2016 & 2017
- "Mobilistep: A Dynamic Walking Rehabilitation Device", Capstone Design Review Poster Presentation, University of Guelph, 2015
- "Athotrack: A Wearable Biometric Data Collector for Athletes with Real-Time Impact Monitoring", Bio-Instrumentation Design Review Poster Presentation, University of Guelph, 2015
- "3D Printing of Vascular Tissue", Biological Systems Literature Research Presentation, University of Guelph, 2015
- "Gender Differences of Ground Reaction Forces Upon Impact During Drop Landing With and Without an Ankle Brace", Clinical Biomechanics Lab Research Presentation, University of Guelph, 2015
- "Ergonomic Assessment of Longo's Butchery", Occupational Biomechanics and Ergonomics Workplace Analysis Presentation, University of Guelph, 2015
- "Quantification and Comparison of Selected Footwear on Lower Body Kinematics and Kinetics", Engineering Biomechanics Lab Research Presentation, University of Guelph, 2014
- "Terrain in Motion: A Retrofitted Treadmill Rehabilitation Device", Biomechanical Engineering Design Review Poster Presentation, University of Guelph, 2014
- "How the Structure and Materials Used in a Total Knee Replacement Mimic the Anatomy and Function of a Normal Functioning Knee Joint", Comparative Mammalian Anatomy Literature Research Poster Presentation, University of Guelph, 2013



- "Interdisciplinary Analysis of Bee Stings", Molecular and Cellular Biology Literature Research Poster Presentation, University of Guelph, 2013
- "Interdisciplinary Analysis of Cholera", Biological Concepts of Health Literature Research Poster Presentation, University of Guelph, 2012