

## Curriculum Vitae

# Greg Prentice, B.Eng., P.Eng.

Advantage Forensics® Inc. (416) 630-0700

2770 Dufferin St., Suite 115, Toronto, ON, M6B 3R7 gprentice@aforensics.ca



## PRACTICE AREAS

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

## 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

## 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 as 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

**ADDITIONAL COURSES, TRAINING & AWARDS**

- “Video Evidence and Photogrammetry – From the Field Through Analysis” iINPUT-Ace video symposium, June 2020
- “Getting started with iINPUT-ACE v. 2.6” iINPUT-Ace video symposium, June 2020
- “Photoshop in the Video Analysis Workflow” iINPUT-Ace video symposium, June 2020
- “More Than Meets the Eye” iINPUT-Ace video symposium, June 2020
- “DVR Evidence Recovery – The Good, the Bad and the Ugly” iINPUT-Ace video symposium, June 2020
- “Calculate Accurate Timing from Video” iINPUT-Ace video symposium, June 2020
- “Violent Crime Digital Evidence Recovery during Covid-19. How Major Cities are Adjusting Workflows” iINPUT-Ace video symposium, June 2020
- “Analysis and Interview for Force Investigations” iINPUT-Ace video symposium, June 2020
- “Legal Issues and Trends Related to Video Admissibility” iINPUT-Ace video symposium, June 2020
- “Conducting a Video-Centric Investigation: Preparing for the End-Game” iINPUT-Ace video symposium, June 2020
- “PC-Crash Training Course: 401 Staged Collisions” online course, PC-Crash, April 2020
- “Human Factors Related to Perception Reaction Times”, Advantage Forensics in-house training workshop, Toronto, April 2020
- “The Democratization of Video Evidence: Equipping Investigators with Modern Tools and Know-How” webinar, iINPUT-ACE, February 2020
- “A Powerful Approach for Video Evidence: How to Combine Point Clouds and State-of-the-Art Scene Mapping” webinar, iINPUT-ACE & Leica Geosystems, September 2019
- 2018 CATAIR National Conference, Ontario Police College, August 2018
- Crash Data Retrieval Operators Course, CATAIR, Durham Regional Police Association, June 2018
- “Forensic Video Analysis Workflow Training”, iINPUT-ACE, Boston, 2018
- “Examining and Cross-examining Experts: Winning Strategies, Trends and Solutions”, The Advocates’ Society, 2016-2018
- 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
- “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

#### PROFESSIONAL SOCIETIES & ASSOCIATIONS

Professional Engineers of Ontario, P.Eng. since 2020

Canadian Society for Biomechanics, member since 2016

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

#### PAPERS, PUBLICATIONS& PROJECTS

- “Categorizing Unintended Acceleration/Pedal Misapplication Collisions from Event Data Recorders”, 28<sup>th</sup> CARSP Road Safety Conference, June 2018.
- "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: Whycomomagh", 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: "Forensics of Human Factors & Ergonomics, Case Studies", MIE345 Engineering Undergraduate Course, University of Toronto, 2016 – 2020
- Input-ACE forensic video analysis training seminar, Advantage Forensics, Toronto, 2020
- Guest lecturer: "Musculoskeletal Disorders in Human-Centred Systems & Forensics", MIE240 Engineering Undergraduate Course, University of Toronto, 2019
- Guest lecturer: "Forensic Biomechanics", MIE439 Engineering Undergraduate Course, University of Toronto, 2018 - 2019
- 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
- "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