Research
Research Areas

SAT
Boolean Satisfiability

MACHINE LEARNING

Parallel Computing

Algorithm

Symbolic Computation

Game Theory

Software Engineering
Application Areas
Industry Sponsors

IBM

Bell

Blue Bubble

ZTR Control Systems

Tillsonburg Hydro Inc.

TELUS

Maplesoft

GlucoGuide

BSi

NCR
Research Highlight

- Largest NSERC Strategic Grant in Canada granted on IoT Middleware
- Team: Led by Western includes Toronto, UVic
Research Highlight:

- Projects
  - Finding the cause of an outage
  - Rerouting power in response
  - Encourage consumers to reduce energy usage with apps and/or games

Distributed Systems, Network expertise

Software Engineering expertise
Research Highlight

- Combine ML and patient data to suggest lifestyle changes
- GlucoGuide is a company started by a CS faculty algorithm based on the research
• Neuroinformatics – Study of the brain
  – Research: Help stroke victims recover their hands
  – Research: Develop concussion blood test
• Focus on the attentiveness of drivers;
• Car may automatically stop at a stop sign if it detects that the driver isn’t paying attention
• Must be done in realtime
Research Highlight

Computer-Automated Design by Artificial Evolution

Genetic algorithm

Parallel Models – optimize performance
Research Algorithm

• Some of the fastest bioinformatics algorithms in the world have been developed at Western.

• New emerging area in game analytics.