ABOUT
The Software Quality Research (SQR) Lab at Ontario Tech University is under the direction of Dr. Jeremy Bradbury and focuses on improving the software quality of complex systems through enhanced tools, development practices and education. In particular members of the lab conduct research on:

- Industry relevant problems and challenges
- Automation of software development activities using artificial intelligence (AI)
- Development of new software testing and analysis techniques
- Experimentation and user studies to understand how developers analyze, debug and test software
- Development of new methods to train software developers

RECENT RESEARCH PROJECTS
Automatic Analysis of Concurrent Software — “Applying genetic algorithms and machine learning to automatically localize and fix concurrency bugs”

Predicting Bug Severity Using Historical Data — “Combining natural language processing and ML to predict bug report severity using data from past projects”


Managing Developer Interruption — “Developing visualizations to support interruption recovery during programming, testing and debugging”

Adaptive Games for Computer Science — “Using AI to develop adaptive games for educating software development professionals”

LAB LEADER
Jeremy S. Bradbury
Associate Professor, Computer Science, Ontario Tech University
PhD, Queen’s University, 2007

RESEARCH KEYWORDS
- testing & analysis
- bug repair debugging
- quality assurance
- concurrency open source
- automotive software testing
- human-centered soft. dev.
- automation AI
- genetic algorithms
- machine learning
- educational games

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