



## Dr. Renee Bryce

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Software Testing, including regression testing, web testing, mobile testing, combinatorial testing, test suite prioritization, test suite reduction, and algorithms for test suite optimization

Research Group: Federal Funding; 5 Ph.D. Students

## Samples of Current Research Projects

### Mobile Testing

- Theory and application merged into projects that improve upon the state-of-the-art tools for Android Testing:
  - Real life system level context data integrated with GUI testing using Markov Models
  - GUI testing with combinatorial-based event and event sequence coverage

### Web Testing

- Theory and application merged into our CPUT tool for user-session-based testing, including features for combinatorial-based test suite prioritization and test suite reduction. (Funded by NIST with the algorithms published in several venues and the tool used by several companies.)

### Combinatorial Testing

- Expertise in algorithms for covering arrays for application to combinatorial testing, including applied research for higher strength coverage, seeding, and constraints.