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|----------------|--|---|------------------|--|
| 09/07 | QuickCheck | https://www.cs.tufts.edu/~nr/cs257/archives/john-hughes/quick.pdf | Leo | |
| | Testing an Optimizing Compiler by Generating Random Lambda Terms | https://dl.acm.org/doi/abs/10.1145/1982595.1982615 | Leo | |
| 09/09 | FuzzFactory: Domain Specific Fuzzing with Waypoints | https://rohan.padhya.org/files/fuzzfactory-coopsia19.pdf | Leo | |
| | Sign up below! | | | |
| Tuesday 7th: | Alp, Justin, Aaron, Mingwei, PIERCE | | | |
| Thursday 9th: | Jacob & Henry, Ben, Deena, Segev, Angeline | | | |
| Can do both: | | | | |
| Final Projects | Alp, Justin, Benjamin, Deena, Jacob and Henry, Segev, Angeline, Mingwei, Aaron | | | |
| | Papers to sign up for (roughly in proposed chronological order, but subject to change) | | Presenter | Short Description |
| | | | Segev | Lazy Generation for preconditions in Haskell |
| 09/16 | Making Random Judgements: Automatically Generating Well-Typed Terms from the Definition of a Type System | http://users.eecs.northwestern.edu/~baf111/random-judgments/ | Jacob | Generation + Constraint Solving for well-typed terms in Racket |
| 09/21 | Generating Good Generators for Inductive Relations | https://lemonidas.github.io/pdf/GeneratingGoodGenerators.pdf | Henry | Compiling preconditions to generators in Coq |
| 09/23 | Coverage-Guided Greybox Fuzzing as a Markov Chain | https://mboehme.github.io/paper/CCS16.pdf | | Fuzzing Basics |
| 09/23 | Quickly Generating Diverse Valid Test Inputs with Reinforcement Learning | https://rohan.padhya.org/files/rcheck-icse20.pdf | | RL for generation |
| 09/28 | Making Random Judgements: Automatically Generating Well-Typed Terms from the Definition of a Type System | http://users.eecs.northwestern.edu/~baf111/random-judgments/ | Jacob | |
| 09/30 | Coverage Guided Property Based Testing | https://lemonidas.github.io/pdf/FuzzChick.pdf | Benjamin | Combining Fuzzing and Property Based Testing in Coq |
| 10/05 | Targeted Property-Based Testing | http://proper-software-lab.ntu.edu.sg/papers/ista2017.pdf | Mingwei | Maximizing User-specified metrics (Erlang) |
| | Automatic Targeted Property-Based Testing | https://proper-testing.github.io/papers/ista2018.pdf | | |
| 10/07 | Semantic Fuzzing with Zest | https://www.flux.utah.edu/paper/darraqh-scheme20 | Alperen | Combining Fuzzing with Property-Based Testing |
| 10/12 | | https://arxiv.org/pdf/1811.09447.pdf | Justin | Random primitives for more interesting mutations in Racket |
| (optional) | Clotho: A Racket library for Parametric Randomness | https://publications.lib.chalmers.se/records/fulltext/183348/local_183348.pdf | | Splittable Pseudorandomness |
| 10/14 | Smart Greybox Fuzzing | https://arxiv.org/pdf/1811.09447.pdf | Angeline | File Structure Preconditions |
| 10/19 | Parser-Directed Fuzzing | https://rahul.gopinath.org/resources/pdi2019/mathis2019parser.pdf | Deena | Being smarter about getting through the parser |
| 10/21 | Guest lecture: Mike! | | | |
| 10/26 | FairFuzz: A Targeted Mutation Strategy for Increasing Greybox Fuzz Testing Coverage | https://www.carolemieux.com/fairfuzz-ase18.pdf | Pierce | Fair Mutations for Fuzzing |
| 10/28 | Finding and Understanding Bugs in C Compilers | https://www.cs.utah.edu/~regehr/papers/pdi11-preprint.pdf | Aaron | Seminal CSmith work on C generation |
| | Do Judge a Test by its Cover | https://lemonidas.github.io/pdf/Combinatorial.pdf | Leo | Combinatorial Property-Based Testing (new form of Feedback) |