Organization and Team

- Kestrel Institute (Palo Alto, CA)

  non-profit research lab
  (note: not the same as Kestrel Technology LLC)

- Alessandro Coglio (Lead Investigator)

- Stephen Fitzpatrick

- Lindsay Errington

- Stephen Westfold

Research Areas of Interest

- Use of application-specific knowledge to improve analysis of software, e.g. if the software being analyzed is known to be a mail reader, the analysis can be more specific and accurate

- Methods for combining synthesis and analysis, i.e. employ top-down generation of potential implementations to reduce the search space of the bottom-up analysis

Our Unique Qualifications and Capabilities

- Generative technology
  - rigorous specification of applications
  - provably-correct refinement to code
  - examples
    - generation of Java Card applets with checkable proofs
    - generation of smart card Java OS (in progress)
    - generation of highly optimized transportation schedulers
    - generation of SAT solvers

Capabilities/Team We Seek

- We seek to join a team
    - interested in automated methods for finding application-level properties
    - that has language-level, customizable analysis capabilities
    - that has runtime monitoring capabilities (when the situation permits) to help reduce search space

Contact Information

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