AHA's Future Research Directions

Agile Co-design

Accelerators for sparse ML

Number systems for ML

Exploring new memories
(e.g. eDRAM for transient data)

Auto-scheduling on accelerators

Compilers and programming models for
- Sparse ML
- Linear solvers
- Recurrences
- Relational algebra

Compiler generator for dynamic languages

Domain-Specific Accelerators

Formal Verification Tools

Domain-Specific Compilers

Improve performance of formal tools
(model checkers, SMT solvers)

Bring ML into automated reasoning

Bring automated reasoning into design

Chiplet-based design

Enabling application designers to make specialized systems