HARDWARE AREA

Designing computer systems for tomorrow

• 16 faculty:
  Todd Austin, Valeria Bertacco, Peter Chen, Robert Dick,
  Prabal Dutta, John Hayes, Scott Mahlke, Igor Markov,
  Jason Mars, Pinaki Mazumder, Trevor Mudge,
  Satish Narayanasamy, Marios Papaefthymiou,
  Karem Sakallah, Lingjia Tang, Thomas Wenisch

• 70+ Ph.D. students

• >5M$ research expenditures/year
  NSF, DARPA, Intel, IBM, Qualcomm, NVIDIA, Cisco, Google…

• Home of 2 research centers:
  • C-FAR Center for Future Architecture Research
  • ARM Research
Broad Research Spectrum

- Hardware security
- Design Viability
- Data-centers
- Circuit Design
- HW Accelerators & GP-GPUs
- Embedded & wearable systems
- Reliable Design
- Compilers
- Embedded & wearable systems
Some of Our Recent Ideas

Energy efficiency for heterogeneous systems

Micromote for Smartdust

Sirius pipeline

Memory Controller

Energy efficiency for heterogeneous systems

Security for the heart

EVA – heterogeneous design

Computational sprinting

ForEVeR runtime
Where did our graduates go?

• Faculty
  • CMU, Stanford, Illinois, GeorgiaTech, Toronto, Maryland, NC State, Virginia Tech…

• Industrialists
  • IBM, ARM, Intel, AMD, Hewlett-Packard, Apple, Google, Microsoft, Facebook, NVIDIA, Qualcomm, Texas Instruments,…

• Started their own company, sold out, got insanely rich, and happily retired.