Panel: Industry-Academia Partnerships

Benjamin Zorn (Microsoft)
Beth Mynatt (Northeastern University)
Chris Ramming (VMWare)
Jennifer Rexford (Princeton University)
Vivek Sarkar (Georgia Tech)

Moderator: Divesh Srivastava (AT&T)
Industry-Academia Partnerships: Why?

Industry

♦ Historically:
  – Industry hired most students.
  – Industry did applied research.

♦ In recent years:
  – Foundational research in AI/ML, Cloud, etc. done in industry.
  – Industry needs richer and more diverse talent.

Academia

♦ Historically:
  – Academia trained students.
  – Academia did basic research.

♦ In recent years:
  – Academia needs resources to do empirical research in AI/ML.
  – Academic research faculty and students can provide the talent.
Industry-Academia Partnerships: Prior Work

- **Future of computing research: Industry-academic collaborations.**
  - Based on 2015 industry round table co-sponsored by CCC.
  - Nady Boules, Khari Douglas, Stuart Feldman, Limor Fix, Gregory Hager, Brent Hailpern, Martial Hebert, Dan Lopresti, Beth Mynatt, Chris Rossbach, Helen Wright.

- **Evolving academia/industry relations in computing research.**
  - Follow-up in 2019 to the 2015 CCC document.
  - Shwetak Patel, Jennifer Rexford, Benjamin Zorn, Greg Morrisett.

- **Ad hoc CRA committee report on industry/academia interactions.**
  - Based on 2020 survey results from 100+ CS department chairs.
  - Nancy Amato, Susan Davidson, Eric de Sturler, David Ebert, Mark Hill, Charles Isbell, Shwetak Patel, Chris Ramming, Vivek Sarkar, Divesh Srivastava, Marvin Theimer, Benjamin Zorn.
I-A Partnerships: Trends and Opportunities

♦ Trends:
  – Significant engagement between computing faculty and industry in the form of extended joint appointments, e.g., in AI, with an increasing trend.
  – Increasingly, companies are highly motivated to engage both faculty and graduate students working in specific technical areas.
  – Positive aspects of I-A interactions clearly outweigh the negatives.

♦ Opportunities:
  – Create best practices report for departments and companies in industry-academia engagements related to computing research.
  – Potential for academic principles/values to inform future industry products and R&D roadmaps through increased collaborations.
  – Form new CRA committee focused on fostering, amplifying, and sustaining industry’s contributions to computing research.
This Panel: Structure

♦ I will ask the panelists to introduce themselves and will ask them three broad questions about industry-academia partnerships.
  – Q1: Why now? What are the new emerging trends?
  – Q2: What makes for win-win research partnerships?
  – Q3: How can I-A partnerships help in the future of CS education?
  – Brief closing statements by panelists.

♦ Audience interaction.
  – Relevant questions for panelists, comments are always welcome.
  – I will manage audience interaction to keep panel on track.
Panel Question #1

Why should we focus on Industry-Academia partnerships now? What do you see as new emerging trends for these partnerships?
Panel Question #2

What makes for a win-win research partnership between industry and academia? What are the red flags that need to be avoided?
Panel Question #3

What are your thoughts on the role of I-A partnerships in the future of CS education and teaching of students?
Closing Statements

♦ Benjamin Zorn (Microsoft)

♦ Beth Mynatt (Northeastern University)

♦ Chris Ramming (VMWare)

♦ Jennifer Rexford (Princeton University)

♦ Vivek Sarkar (Georgia Tech)
Thank You!