Social Computing and Decentralized Artificial Intelligence

CSC 455 and CSC 555

Munindar P. Singh, Professor
singh@ncsu.edu

Department of Computer Science
North Carolina State University

Fall 2025

Bio Highlights and Humble Bragging

- Students
  - Graduated PhD: 36; MS: 41
  - Alumni Hall of Fame: Nirmit Desai, Michael Maximilien, Pınar Yolum
  - Faces of Computer Science (EB2 hall): Chris Hazard
  - Rising Star Alumnus: Chris Hazard, Anup Kalia
  - Associate Editors: Amit Chopra, Michael Maximilien, Pınar Yolum
  - CGS MS Thesis Award: Payal Chakravarty; nominee: Anup Kalia
  - Dept awards. 2025: Vaibhav Garg; 2024: Divya Sundaresan; 2023: Samuel Christie, Vaibhav Garg, Amanul Haque, Jiaqing Yuan; 2021: Amanul Haque, Parth Diwanji; 2020: Hui Guo; 2019: Nirav Ajmeri; 2017: Nirav Ajmeri, Hui Guo, Pradeep Murukannaiah; 2016: Pradeep Murukannaiah
- NCSU Internal
  - Outstanding Graduate Faculty Mentor, Research Leadership Academy, Alumni Distinguished Graduate Professor, Outstanding Research Achievement
- External
  - Member (honoris causa), Academia Europaea
  - Fellow, American Association for the Advancement of Science
  - Fellow, Association for the Advancement of Artificial Intelligence
  - Fellow, Association for Computing Machinery
  - Fellow, Institute of Electrical and Electronics Engineers
  - ACM/SIGAI Autonomous Agents Research Award
  - IEEE TCSVC Research Innovation Award
  - IFAAMAS Influential Paper Award
  - Editor in Chief: (ACM TOIT, IEEE Internet Computing)

My Goal and Request for Your Help

- Introduce you to deep concepts, some years in the making in the research and advanced development community
- Introduce you to critical thinking
- Boost your confidence in taking on technical challenges
  - You might hesitate to take on otherwise
  - Your peer group might find overwhelming
- Offer free advice (worth every penny^{SM}) about your
  - Education
  - Career
- How you can help
  - Don't take ethically dubious actions
  - Stay engaged
  - Communicate with me personally, especially about
    - Explanations and motivations
    - Improvements to the course, in general

Mechanics

- Scope
- Grading
- Policies
  - Especially, academic integrity
  - Don't help; don't take help; don't collude

Bloom's Taxonomy of Learning Domains (Cognitive)

I emphasize the upper categories

Creating	Build new structures
Evaluating	Make judgments
Analyzing	Identify elements
Applying	Use on a problem
Understanding	State in own words
Remembering	Recall

- `http://www.nwlink.com/~donclark/hrd/bloom.html`