WPI Admissions

Computer Science

Fall 2020

CS at WPI

- **Programs**
- People
- Projects
- Breadth
- Impacting Society
- Careers

WPI

CS Undergraduate Programs

- Computer Science (+ Conc. Cybersecurity)

- Interactive Media & Game Dev

- Robotics Engineering

- Bioinformatics & Computational Biology
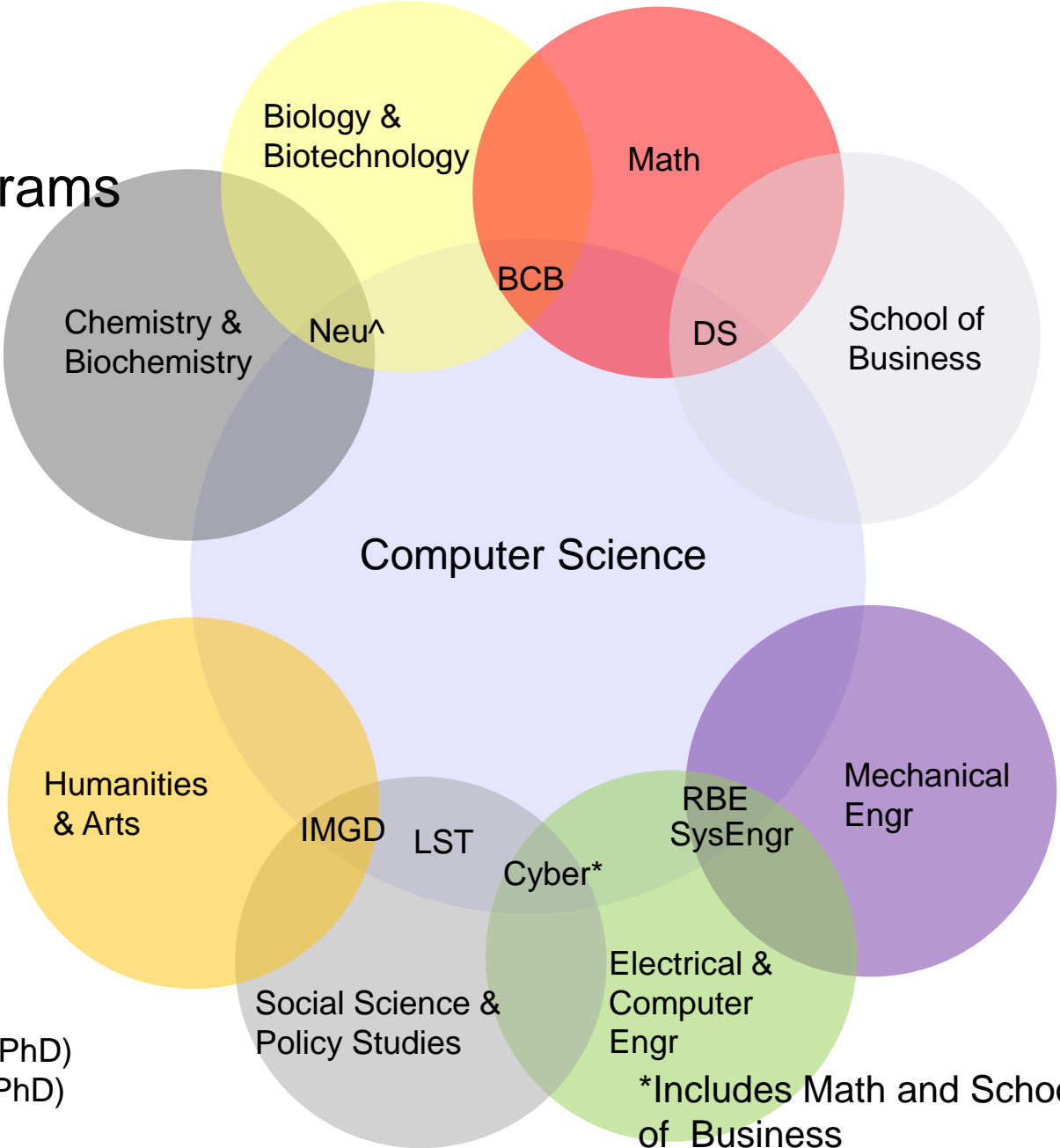
- Data Science

and

- Minors in CS, IMGD, RBE, BCB, Data Sci

- BS/MS program (including Cybersecurity)

WPI

Computer Science: The Hub of WPI Interdisciplinary Programs

Biology & Biotechnology

Math

Chemistry & Biochemistry

BCB

Neu^

DS

School of Business

Computer Science

Mechanical Engr

Humanities & Arts

IMGD

LST

RBE SysEngr

Cyber*

Social Science & Policy Studies

Electrical & Computer Engr

BCB: Bioinformatics &
   Comp. Biology (BS/MS/PhD)
Cyber: Cybersecurity (BSConc, MS)
DS: Data Science (BS/MS/PhD)
IMGD: Interactive Media
   & Game Development (BS/MS)
LST: Learning Sciences
   & Technologies (MS/PhD)
Neu: Neuroscience (MS)
RBE: Robotics Engineering (BS/MS/PhD)
SysEngr: Systems Engineering (MS/PhD)

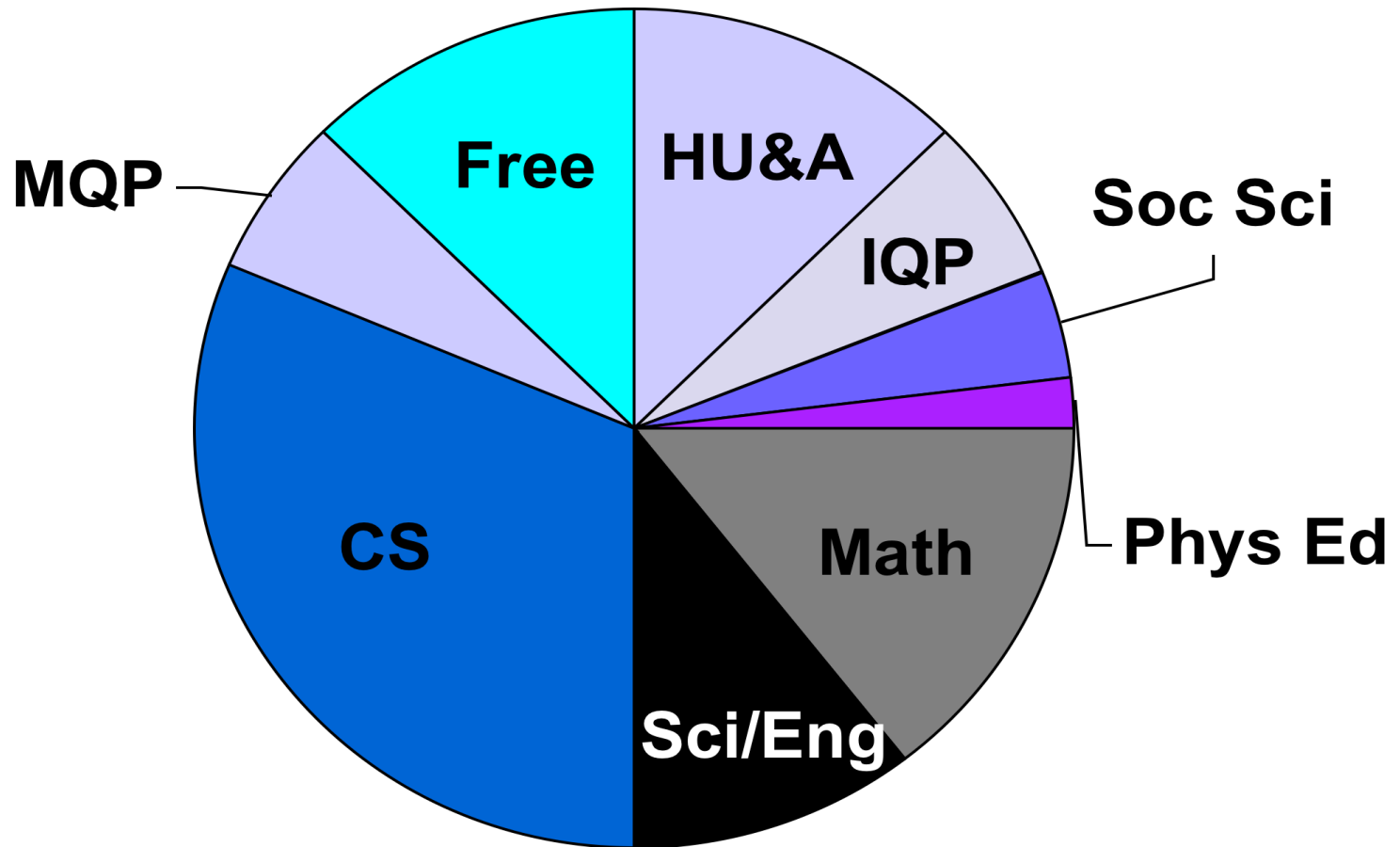*Includes Math and School of Business
^includes BME, Math and SSPS

WPI

Flexibility

- **Wide choices** in courses, projects
- **Recommended background** for courses
- **7-week terms**
- **Frequent** course offerings:

  Over 60 Offerings, over 30 Courses in 2020–21
- Sample courses:

  Data Mining, Mobile Computing, Software Security Engineering, Machine Learning

Curriculum at a Glance

Sample CS First Term

CS 1101	Introduction to Program Design
MA 1021	Calculus I
EN 2231	American Literature: The Raven,
PE 1018	

CS 1102	Accelerated Intro to Program Design
MA 1023	Calculus III
FY 1100	Great Problems Seminar:
PE 101	

BB 1035	Introduction to Biotechnology
SP 1523	Elementary Spanish I
ECON 1110	Introductory Microeconomics

WPI

Course Planning Options

- Follow flow of recommended courses for structured program.

- Exploit flexibility for courses and projects that are the best fit for you.

- Pursue "themes" in the courses and projects that you choose, such as software and interface design, application development, cybersecurity, data analysis, health, …
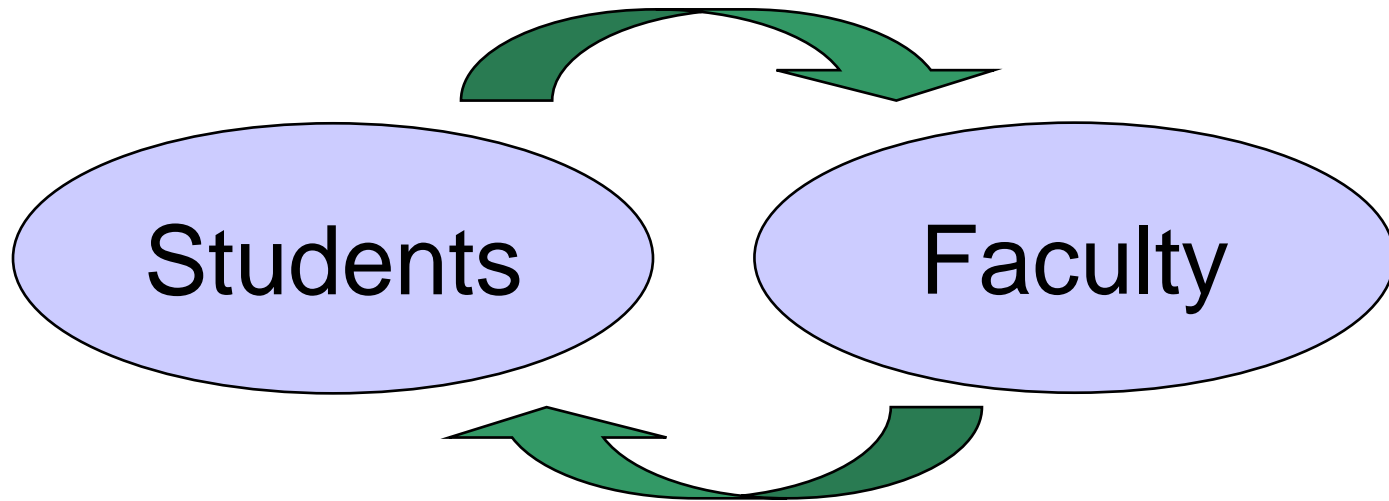
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WPI

People

Students Faculty

- Courses
- Projects
- Research
- Advising

WPI

CS Faculty

- Faculty **teach**

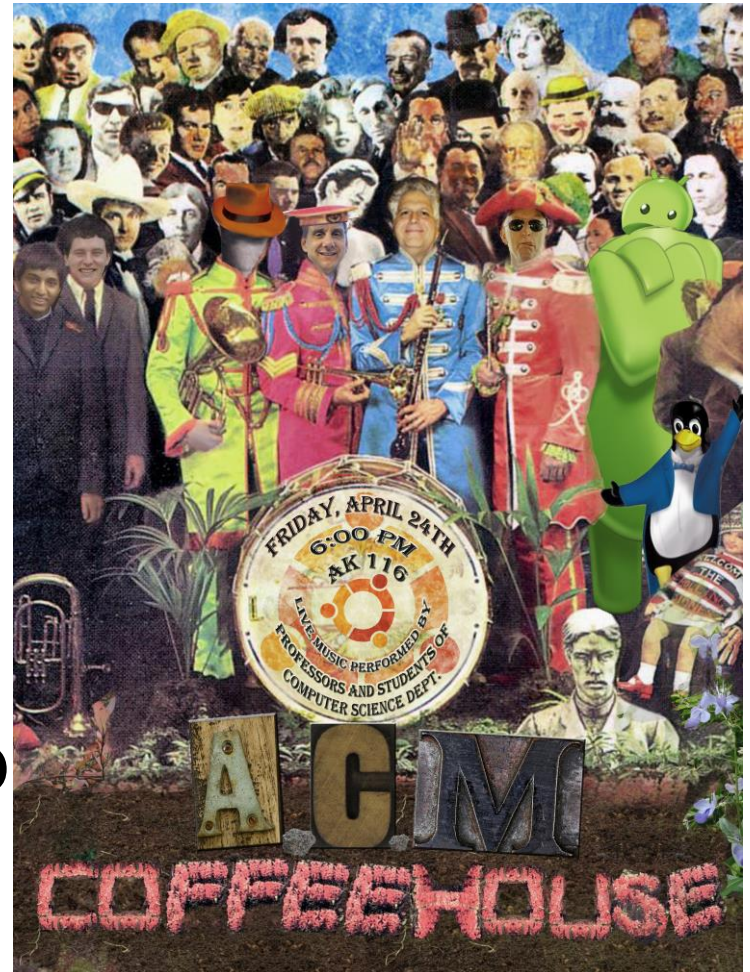- Graduate and Senior teaching assistants **assist**

- Faculty Awards
  - Innovative teaching
  - Teaching technology fellowships
  - Best paper – *some with undergraduate students!*

CS Student Organizations

- Association for Computing Machinery
  - BBQs, hackathons
- Women in CS
  - Networking Dinner
- CS Honor Society UPE
  - Mock technical interviews
- Cybersecurity Club
  - Competitions
- Game Development Club

CS at WPI

- Programs
- People
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Projects

- **Real** solutions to **real** problems

- Many with **industry**, **govt labs**

- **Fun**, **challenging**, **professional**

- **Course projects**

WPI

CS Major Project Centers: Wall St

CS Major Project Centers: Si Valley

Other CS Project Sponsors

CS Projects 2020

- Sample topic areas:
  - Games & Multimedia Networking
  - Security & Crypto
  - Computer Networks
  - Software Engineering
  - Machine Learning
  - Artificial Intelligence
  - Cloud Computing
  - Robotics & Embedded Systems

CS at WPI

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- **Breadth**
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Global Project Centers

CS Research Groups & Labs

- Center of Excellence in Cybersecurity Research
- Applied Logic and Security
- Artificial Intelligence
- Collaboration & Creativity Support
- Congestion Control
- Database Systems
- Human Interaction in Virtual Environments
- Human-Robot Interaction
- Image Science

More...

CS Research Groups & Labs

- Knowledge Discovery & Data Mining
- Mobile Graphics
- Performance of Distributed Systems (Networks)
- Research in Filtering & Recommendation
- Software Engineering
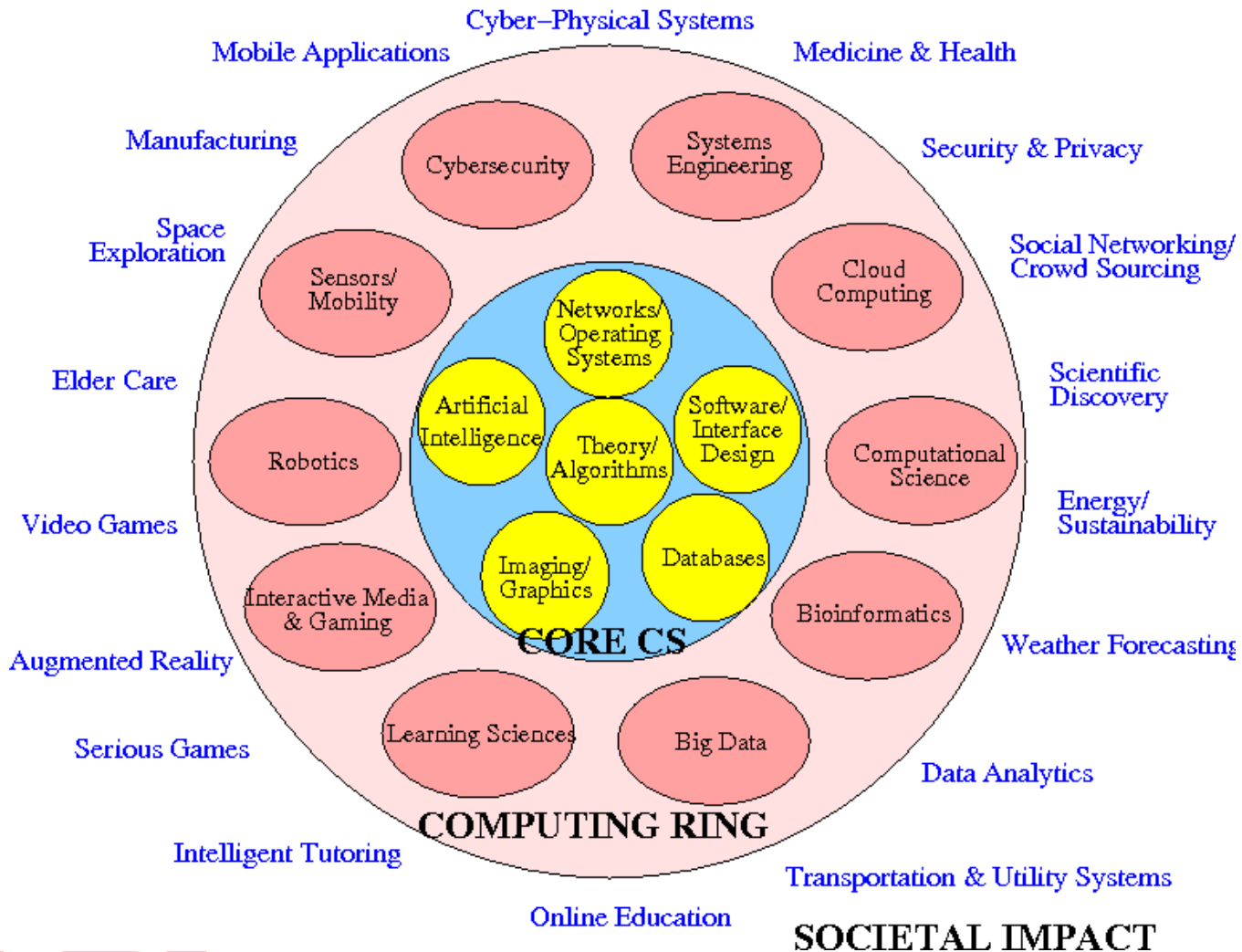- Software Tools Technology
- Theory
- Tutoring

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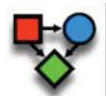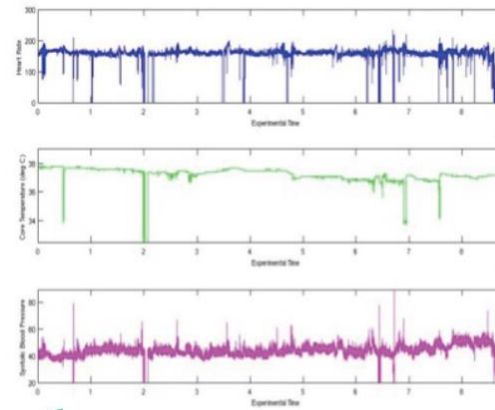- Careers

WPI

WPI CS Impacting Society

Utility and Health Systems

- Home water usage: Computer Science problems involve sensing, analytics, visualization, prediction.
- Looking for "signal" in apparent noise.
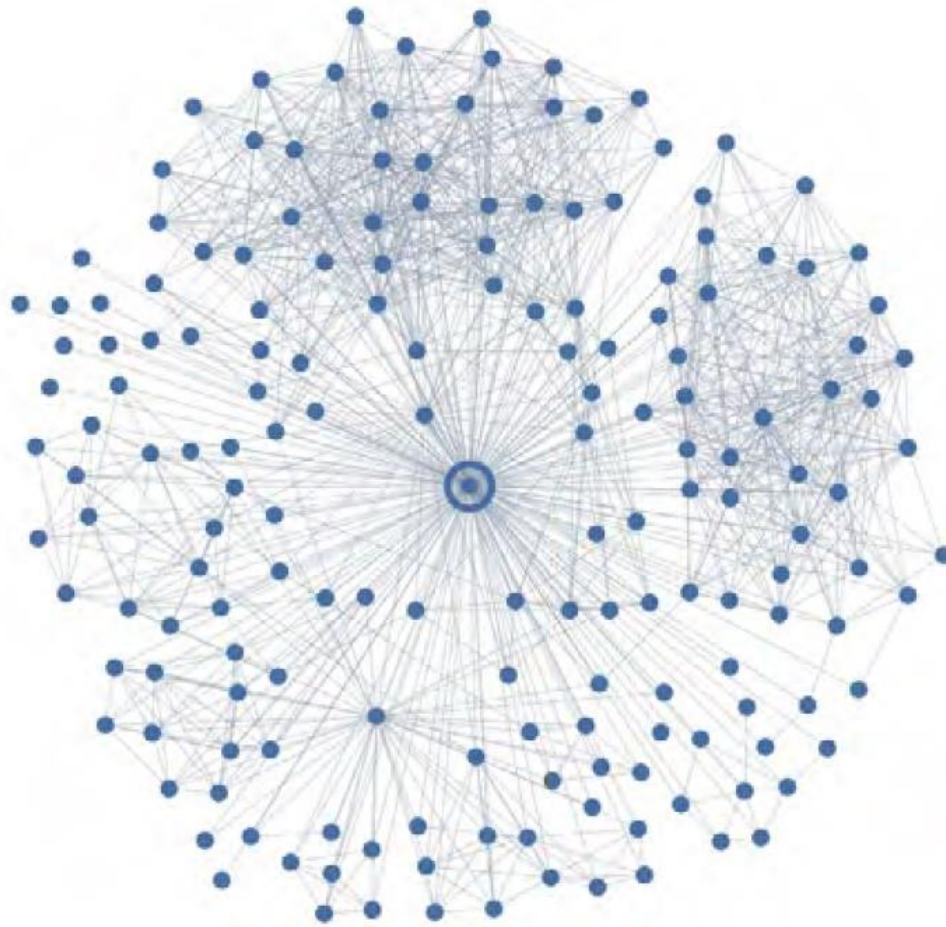
(Saria et al, Science Trans. Med, 2010)

Continuous physiologic monitoring

Social Networking

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WPI

Post-Graduation Opportunities

2019 WPI CS: Close to full placement, starting salary: **$88,750.**

Sep'19: CollegeFactual ranks **WPI CS as 2nd best program** in the U.S.

Students interested in **Cybersecurity** can earn scholarships as early as Junior year for BS or BS/MS program through NSF-supported grant.

Notable Employers

New Building: Interdisciplinary Programs and Student Services

Photo taken Summer 2020. Building expected for occupation Jan 2022.

More CS Info: http://web.cs.wpi.edu/admissions

Additional questions can be directed to:
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