Hey, I'm

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Courses

- CS 9549b: Software Architectures
- CS 9864b: Software Engineering for Big Data

  Applications and Analytics

- Coordinate Undergraduate courses:
    - Internship, Capstone, Theses, Open Source, Mainframe.

- CS 9863b: Empirical Research Methods
- CS 9551a: Requirements Engineering

(dormant)

Learning Objectives – CS9549b (Software Architectures)

- Different types of software architectures

- Quality attributes, tactics, tradeoffs, sensitive points, risks

- Architectural design approaches

- Evaluation of architectures

- Group work – Architectural project on a cloud

- Micro-services and architecture

Learning Objectives – cs9864b (SE for Big Data Applications and Analytics)

- Domain of Big Data, Services, and Data Analytics
- Focus:
  - Mainly: SE for Big Data-oriented applications
  - Little: Big Data for SE (a.k.a "Software Analytics")
- Project (2019): Create Big Data and services application on a cloud using micro-services:
  - Stock market
  - Climate events
  - etc.

Research Themes

- Requirements Engineering (RE) for systems engineering projects

- RE for Big Data-oriented applications

- Cloud infrastructures

- Software/System Architectures

- Complex Defects

- Compliance issues in Development

- Metrics

Example Research Topics

- Provisioning RE information to Internal stakeholders -- dashboard

- RE domain model for Big Data-oriented applications

- Cloud infrastructure performance

- Micro-services: monitoring, extensibility & customisability

- Compliance issues in RE

- Multiple Component Defects (MCDs)

Research Approach

- Empirical
  - Observations, action-research and case studies, etc.
- Collaboration with industry

... and not fear the Unknown!