CSCI-4966 Open Source Software

Professor Wesley Turner

Amos Eaton 207

Licensing

Our Lecture Slides have greatly benefited from the previous classes taught by Dr. William Schroeder and Dr. Luis Ibanez at RPI,

And by Professor Mukkai Krishnamoorthy who succeeded them in teaching the course

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Overview

- Course Objectives

- Course Content

- Reading List

- Grading

Course Objectives

- Familiarize with Open Source Software Development

- Reading and Understanding "Good" Code

- Patch an existing Open Source Project

- Work on a team Project

- Aware of team dynamics including diversity issues

Course Objectives (contd)

- Be knowledgeable in at least one software stack.

- Prepare for a new RCOS project for the following semester.

Course Content

- Foundations of Open Source (History and Licensing)

- Software Management Tools (Version Control (git), Documentation Tools (markdown, markup), System Build, Specification and Testing, Collaborative Development

- Software Development Tools (python, javascript node.js), Statistical computing(R, Rstudio), Database

Course Contents (contd)

- Software Applications (Web Development, Cloud Computing Platform, Mobile Applications)

- Advanced Topics (Open Hardware, Jupyter, Docker, TensorFlow)

- Projects

Reading List

- Look at the Material in Lectures

- Check out the additional resources:

  - CSCI-49XX-OpenSource/Reading-Material.md

Lab Assistants

- Byan Dieudonne dieudb@rpi.edu

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- Adrian Collado collada@rpi.edu

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Class Format

- Tuesday Lectures/Discussions

- Friday in class labs – a mixture of programming, development, writing and discussion

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Except that Today is Tuesday, which will swap this all around until Presidents Day on 2/18!

Grading

- Quizzes 2 (22nd February and 16th April) 20%

- Open Source Project Analysis 10%

- Labs 10 – 30%

- Project 40%

- 93 and above A; 90 and above A-; 87 and above B+; 83 and above B; 80 and above B-; 77 and above C+; 73 and above C; 70 and above C-; 67 and above D+; 60 and above D.

Questions and Discussions