Opportunities after graduation: Master's degree?

Dr. Vasil Hnatyshin
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Outline

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- Computer Science Graduate Program at Rowan
- Research projects
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Introduction

- Exciting time to be a CS major
- Everything depends on computers
- Lots of job opportunities
- The CS curriculum improves every year
- CS program at Widener significantly expanded and improved
Briefly about myself

- Lviv I. Frank University, Lviv, Ukraine Fall, 1991
  - Major: Applied Mathematics
- In Fall 1993, transferred to Widener
  - Major: Computer Science
  - Minor: Mathematics
- VAX Manager, Widener University 1995 – May 1997
- Internship at SmithKline Beecham, 1996
- B.S. (summa cum laude) from Widener in May 1997
  - Thesis: "Security of the Java Language"
Briefly about myself

- M.S. from University of Delaware in May 1999
- Internship at Ericsson IP Infrastructures, 2001
  - Implemented a Management Information Base (MIB) for Differentiated Services (RFC 3289) and integrated it with the Quality of Service daemon for the Ericsson's AXI 540 IP services router
- Ph.D. from University of Delaware in May 2003
  - Thesis: *Dynamic Bandwidth Distribution Techniques for Scalable per-flow QoS*
- Currently, Associate Professor at Rowan University
Life of a graduate student

- I believe that graduate school opens additional opportunities after graduation
- The life of a graduate students includes
  - More independence
  - Work with a lot of similar-minded individuals
  - Study advanced topics within the discipline
  - Study is often research oriented
    - Publish papers
    - Present at conferences
    - The focus of research often narrow
  - May require to write a thesis and take preliminary exams
Nearby Graduate Programs

- University of Delaware (UD)
  - [www.cis.udel.edu](http://www.cis.udel.edu)
  - Master’s and Ph.D. degrees
  - CS Research Day at UD, Friday, November 12, 2010
    - researchday@cis.udel.edu, 302–831–2713

- Rowan University
  - Master’s program
  - crichlow@rowan.edu

- Other Universities: Villanova, Drexel, Temple, University of Pennsylvania, Rutgers
About Rowan University

- US News & World Report ranks Rowan University in the "Top Tier" of Northern Regional Universities
  
  http://colleges.usnews.rankingsandreviews.com/best-colleges/glassboro-nj/rowan-university-2609

- Kiplinger's named Rowan University one of the "100 Best Buys in Public Colleges and Universities"


- Kaplan included the University in “The Unofficial, Biased Insider’s Guide to the 320 Most Interesting Colleges.”
About Rowan University

- Rowan's main campus
  - Is located across the bridge about 20 miles east on 322
  - Is nestled in historic New Jersey town of Glassboro
  - Is only 30 minutes from Philadelphia's famed South Street
  - Is only 45 minutes from the Atlantic City Boardwalk

- Nearly 10,000 students pursuing degrees in
  - 36 undergraduate majors,
  - Seven teacher certification programs,
  - 26 master's degree programs and
  - A doctorate in educational leadership.
Computer Science Department

- Is part of the College of Liberal Arts and Sciences

  www.rowan.edu/colleges/las/departments/computerscience/

- Nationally accredited program by Accreditation Board for Engineering and Technology (ABET)

  http://www.abet.org
Computer Science Department

- We have 16 highly qualified faculty with diverse areas of research
  
  http://www.rowan.edu/colleges/las/departments/computerscience/facultystaff/index.html

- Faculty have ongoing collaboration with many industrial partners including Federal Aviation Administration and MSE
MSCS from Rowan University

- CS Department offers two programs:
  - Master of Science (MS)
  - BS/MS - students can complete BS and MS in 5 years

- MSCS is a 30 credit hour program with an optional thesis track.

- Required course-load:
  - 12-credit core courses.
MSCS from Rowan University

- **MSCS Thesis Track:**
  - 12 additional credits of restricted electives and
  - the 6-credit thesis sequence

- **MSCS Non-thesis Track:**
  - 18 additional credits of restricted electives,
  - 6 credits of which must be classified as *project intensive.*
Core courses

- Advanced Theory of Computing
- Advanced Design and Analysis of Algorithms
- Programming Languages: Theory, Implementation and Application
- Advanced Software Engineering
- Design and Implementation of Operating Systems
- Topics in Computer Architecture
- Computer Networks
- Advanced Database Systems: Theory and Programming
MSCS from Rowan University

Restricted elective courses

- Compiler Design Theory
- System Programming
- Advanced Object Oriented Design
- Wireless Networks and Systems
- Embedded Systems Programming
- Topics in Computer Architecture
- Advanced Robotics
- Concepts in Artificial Intelligence
- Natural Language Processing
- Machine Learning
- Computer Graphics
- Computer Vision
- Introduction to Visualization
- Advanced TCP/IP and Internet Protocols and Technologies
- Network Security
- Computer Animation
- Advanced Topics in Computer Science