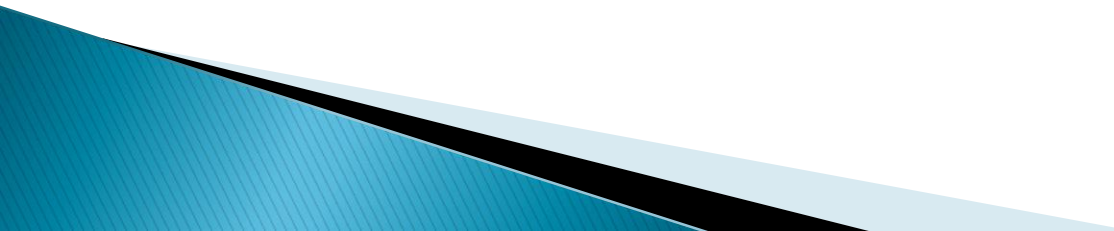


Computer Science Club Seminar

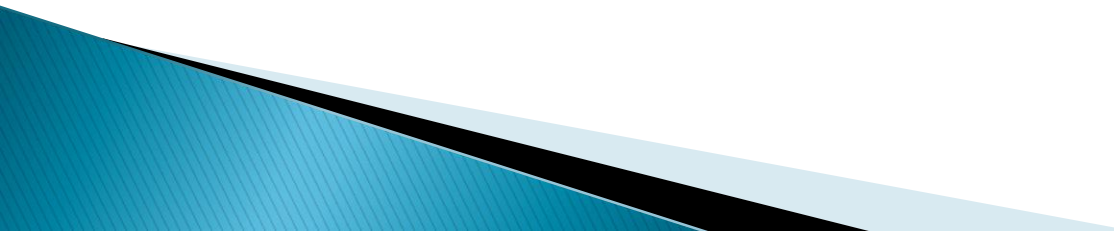
Opportunities after graduation: Master's degree?

Dr. Vasil Hnatyshin
Fall 2010

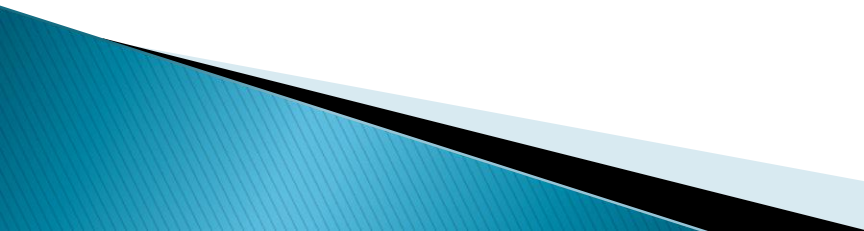
Outline

- ▶ Introduction
 - ▶ Briefly about myself
 - ▶ Life of a graduate student
 - ▶ Computer Science Graduate Program at Rowan
 - ▶ Research projects
 - OPNET
 - Geographical AODV
- 

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, 991
 - 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
 - Master's and Ph.D. degrees
 - CS Research Day at UD, Friday, November 12, 2010
 - <https://www.cis.udel.edu/researchday/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"
- The Princeton Review included Rowan in the latest edition of "The Best Northeastern Colleges."
- ▶ 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*.

MSCS from Rowan University

▶ 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