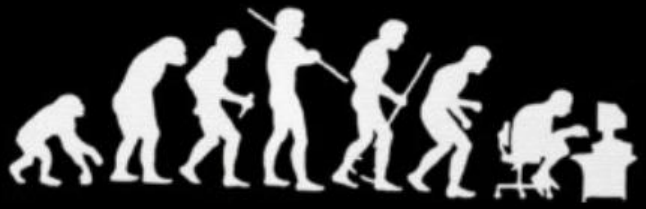
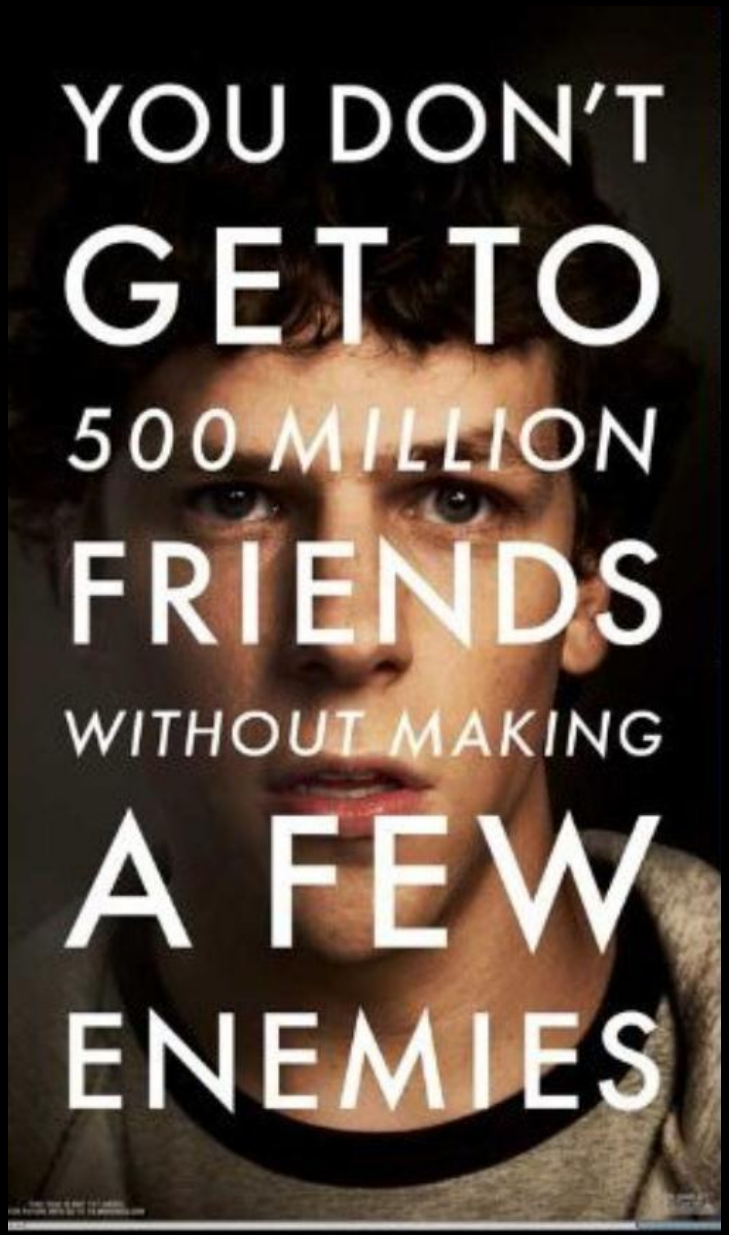
Exciting Times to be a Geek



Computer Science at Lewis University

http://cs.lewisu.edu



Facebook was founded by a computer science major.

These companies likewise started with computer science majors at the helm

skobsie
shadows
grovee
YouTube
Zimbra
smugmug
newsgator
Blogniscient
TinFinger
shutterfly
PodDater
Feedster
favoor
ZAZZLE
Tailrank
TagWorld
nuvvo
dogear
yakalike
grouper
ODDPOST
iNods
Lulu
blish
flagr
FireAnt
simplyhired
theadcloud
rbloc.com
gather
oyogi
cafepress
Renkoo
standpoint
meebo
last.fm
Jotspot
Frappr!
jotoye
dabble
YEDDA
Writeboard
SHOUTWIRE
iKarma
memeorandum
CalendarHub
Suprglu
pando
zigtag
Findory
backfence
clipmarks
wayfarm
gOFFICE
AllPeers
orb
Rallypoint
Zoozio
blogbeat
Ziggi
zoto
vSocial
Boltfolio
wink
riya
Wordcast
Opinity
measure map
gumshoo
bluepulse
STREAMLOAD
Tarda Lists
FeedSky
jellyBarn.INC
nativetext
CONGOO
PODZINGER
RSS MAD
FeedTier
phanfare
Fruitcast
PubSub
dPolls
flickr
Ning
Ookles
Strongspace
zoominfo
CASTPOST
yubnub
BLOOP
ProjectSpaces
FeedBurner
Bloglines
FOTOLOG
ourmedia
Yub.com
Spot Runner
myspace
NewsAlloy
Alimydata.com
gabbr.com
Gcast
blinkx
openomy
riffs
ajchat
jambo
ROLLYO
ClipShack
chatsum
PANDORA
looklater
squishr
WebJay
PLAZES
Noodly
30 BETA
windir
diigo
box
Jots
Xdrive
vizu
digg
del.icio.us
AlmondRocks
Tagyu
writely
Simpy
Gtalkr
TRUVEO
egoSurf
mozy
Quimble
pegasus
remember the milk
SQUIDOO
picturecloud
newsvine
Clipfire
Basecamp
Netvibes
goowy
Lexxe alpha
LOOKSTEA
PXN8
measure map
facebook
43 Things
Technorati
Backpack
Gmail
yelp
Smarkets
inform
filangy
magnolia
ShoZu
feedmarker
mercora
MusicSearch
Meet With Approval.com
HomePortals
Spin spy

What Computer Scientists Do

Write software
Design hardware
Design networks
Store data
Present data
Secure data
Play with robots
Build brains
Change the world

What Computer Scientists are Called

Chief Information Officer
Web Developer
Data network security administrator
Programmer
Software Engineer
Video Game Developer
Data Mining Specialist
Database Architect
Database Administrator
Network Administrator
Network Troubleshooter
Network Architect
Embedded System Specialist
System Integrator
Computer Technician
IT Manager
IT Project Manager
Requirements Engineer
Software Tester
IT Help Desk Associate
IT Help Desk Manager
Data Storage Engineer
Penetration Tester
System Modeler
Robotics Engineer
Intelligent Systems Designer
Control Systems Designer

THE FUTURE

IN DEMAND

WELL-PAID

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CollegeBoard.org (the SAT people) published *"Occupations with the Most New Jobs: Bachelor's Degrees"*, compiled from U.S. Department of Labor Bureau of Labor Statistics projections for 2002-2012. Six of the 10 occupations with the most new jobs were computer science-related occupations.

Occupations with the Most New Jobs: Bachelor's Degrees 2002-2012
1. Elementary school teachers, except special education
2. Accountants and auditors
3. Computer systems analysts
4. Secondary school teachers, except special and vocational education
5. Computer software engineers, applications
6. Special education teachers
7. Computer software engineers, systems software
8. Network systems and data communications analysts
9. Network and computer systems administrators
10. Computer programmers

HSNW

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Government policy | Infrastructure | Public health / Biodefense | Surveillance | Systems integration

THE BUSINESS OF HOMELAND SECURITY | Saturday, 26 February 2011

U..S faces critical shortage of computer scientists

Published 13 January 2010

DARPA says the United States is facing a critical shortage of computer scientists; "While computers and internet connectivity become daily fixtures in the lives of Americans, we are steadily losing the engineering talent to [develop and maintain] these systems"

Which college majors pay best?

Comments 1 Share 29 +1 0 Tweet 6 Recommend 2

Joyce Lain Kennedy
Careers Now
October 2, 2011

Q. I know I'm getting a late start, but at 21, I've become serious about getting my bachelor's degree. Which college majors pay best? I do worry about avoiding massive debt that I'll spend half my life trying to pay back. So I need to maximize my earning potential. -- V.G.

A. According to a major study this year by the Georgetown University Center on Education and the Workforce, the top 10 baccalaureate majors with the highest median earnings are:

1. Petroleum engineering, $120,000
2. Pharmacy/pharmaceutical sciences, $105,000
3. Mathematics and computer sciences, $98,000
4. Aerospace engineering, $87,000
5. Chemical engineering, $86,000;
6. Electrical engineering, $85,000
7. Naval architecture/marine engineering, $82,000
8. Mechanical engineering, $80,000
9. Metallurgical engineering, $80,000
10. Mining and mineral engineering, $80,000.

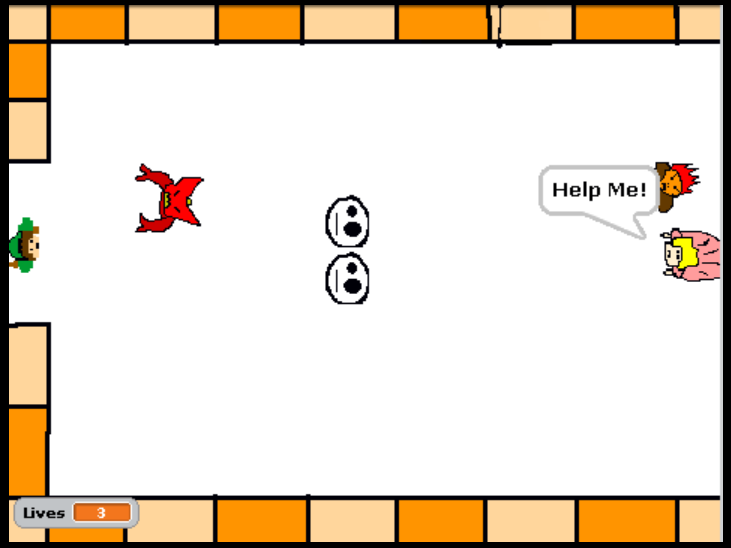
Computer Science at Lewis

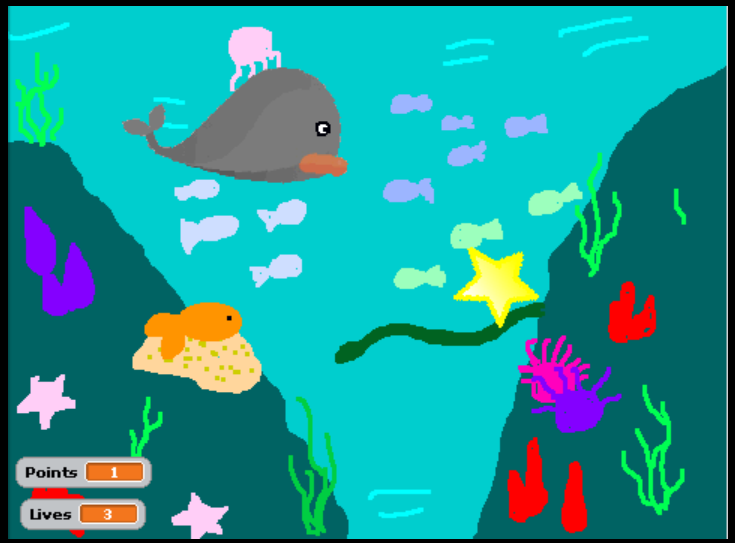
All Lewis Computer Scientists Learn

- How computer systems work
- How to program things for a computer to do
- How to enable computers to communicate

HOW TO SOLVE COMPLICATED PROBLEMS

Introduction to Computer Science





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Training Great Programmers

Project-Oriented Development

- Provide software solutions for non-profit organizations
- Web-based applications for housing organizations, youth groups, community support groups
- Emphasis on service

Electives: Four Main Areas of Focus

- Computer Security
- Video Game Development
- Distributed and Mobile Computing
- Mathematical Simulation

Video Game Programming

- Video Game Programming I
- Video Game Programming II
- Computer Graphics
- Artificial Intelligence
- Mobile Application Development

Video Game Programming

Video Game Programming

Mobile Application Development

Projects this semester

Campus tour guide

Workout tracker

MMS queue

Social scheduler

Tower defense

Two-dimensional top-down military game

Keno

Rock music trivia game

Networking & Security

- $70,000 Cisco Networking Lab
- Red vs. Blue Team Security Experiments and Contests
- Setting up and hardening servers
- Protecting data in databases
- Lots of hands-on experiences
- Unique 5-year BS – to – MS program

Hybrid Technologies

Cloud storage

Data mining

Software as service

Distributed and parallel computing

Fault tolerant computing

Virtualization

Undergraduate Research

S.U.R.E.

Summer Undergraduate Research Experience

Three on-going projects in Computer Science

Role of Fingerprint Power Particle Size on Latent Print Quality
Affective Research in Mobile Development
Automating Market Analysis To Maximize Profits and Minimize Risk

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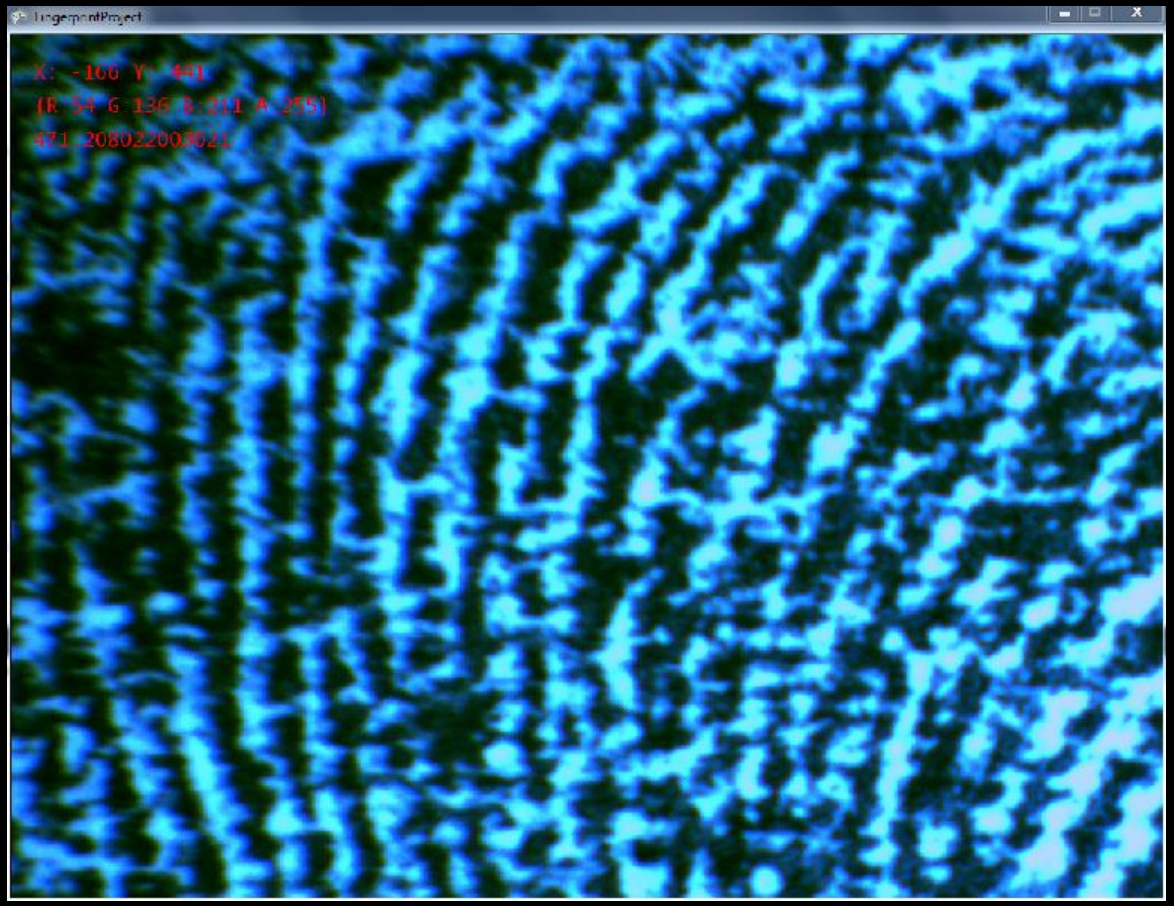
Undergraduate Research

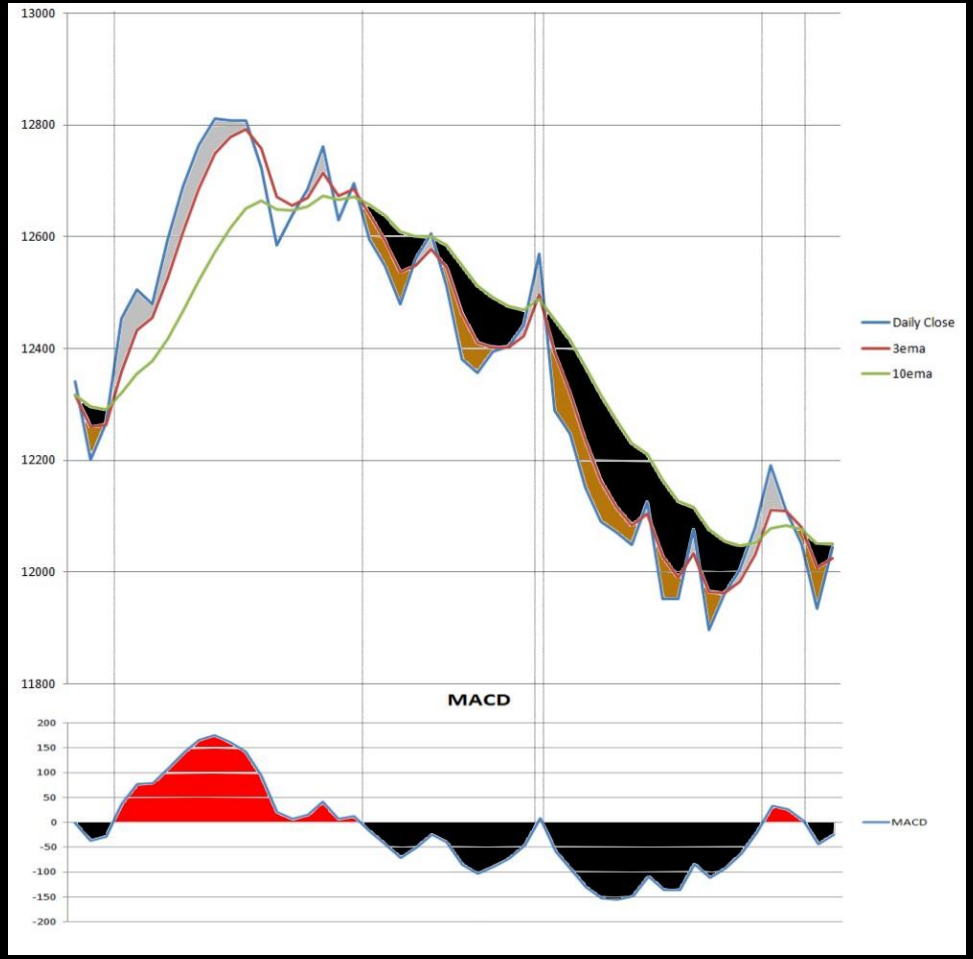
Fingerprint particle size



Undergraduate Research

Automating Market Analysis

To Maximize Profits and Minimize Risk



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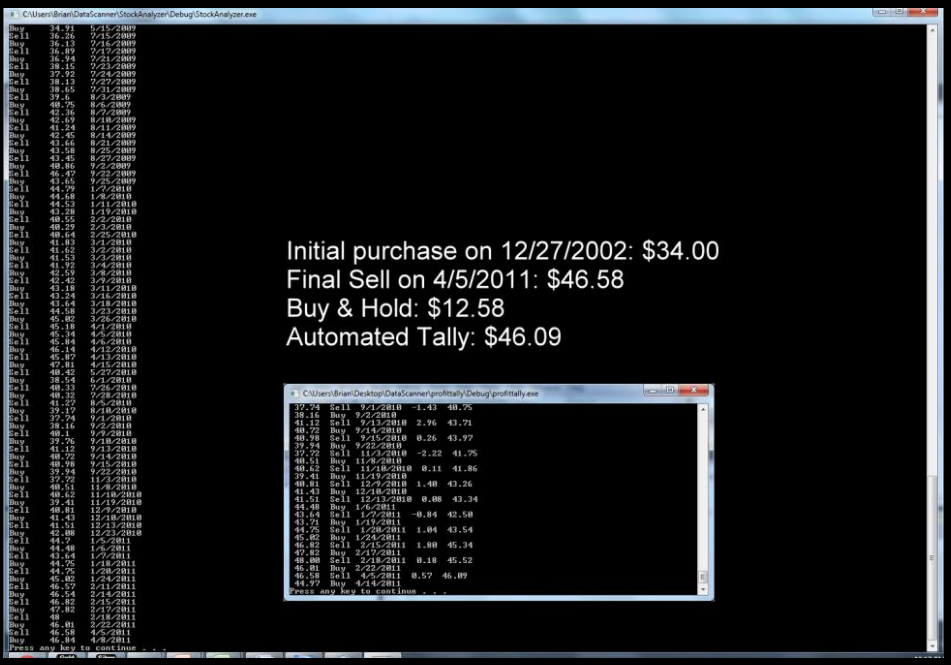
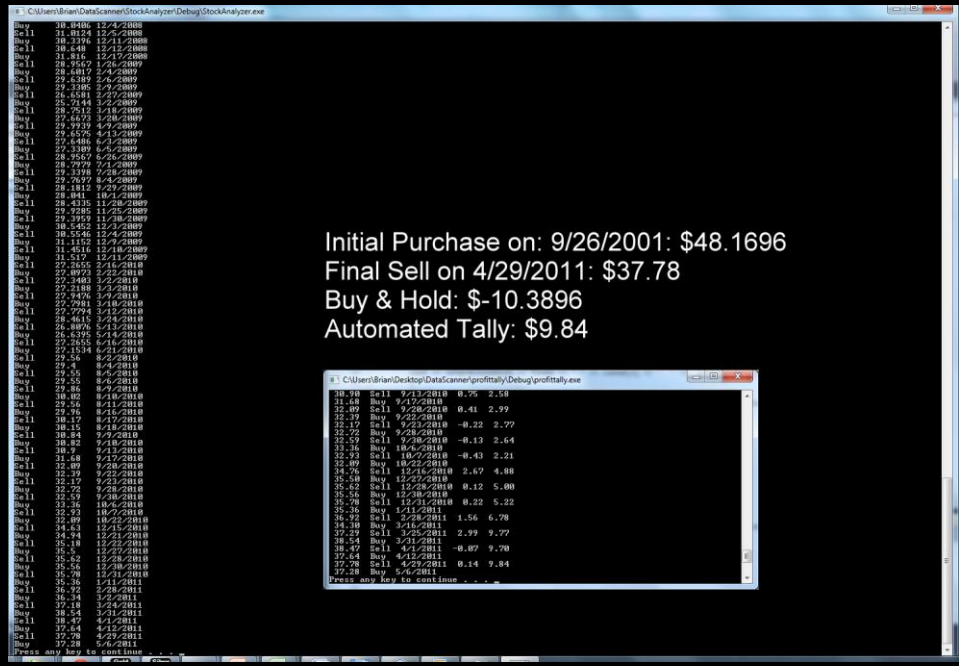
Undergraduate Research

Automating Market Analysis
To Maximize Profits and Minimize Risk





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Student Groups

Prometheon Creative Computing Club

Association of Computing Machinery (ACM)

Upsilon Pi Epsilon National Honors Society

Internships and Jobs

Distinguished Lewis Computer Science Alumnus Gives Talk

Guy Thier, a Lewis University Computer Science Alumnus whose career has led him to a CIO position at Bally Total Fitness, a billion-dollar company, came to speak to about 25 Computer Science majors and their instructors on Wednesday, February 23. Guy has hired hundreds of IT professionals during his career, and there are a number of personality traits and skills he looks for during the interview process. Guy spoke to the students about what he looks for when building a team, how he cultivates an innovative culture, and how they can differentiate themselves when they enter the job market. He gave a very engaging and practical talk that was loaded with excellent advice for the students as they prepare to enter the job market and continue to make educational and co-curricular choices that will shape the beginning of their careers. You can download his slide presentation here. The point Guy drove home repeatedly is that Computer Scientists have the rare opportunity to see and affect all aspects of a company, and that, if they can combine their excellent technical knowledge with clear oral and written communication skills and commit to lifelong learning, they will have outstanding careers. We are grateful for the time Guy spent sharing his expertise.

Comp Sci Alumnus Talks With Students about Software Systems

The Department of Mathematics and Computer Science at Lewis had the pleasure of welcoming Mr. David Katauskas, Client Partner and Enterprise Architect at Geneca Systems. Dave graduated with a Bachelors Degree in Computer Science from Lewis in 1996. He now leads custom software development projects for a variety of business clients. Dave talked with the students about emerging technology trends and encouraged them to pursue their passions in Computer Science as the best way to distinguish themselves in the job market. He claimed that everything he studied in his Computer Science courses, including the challenging technical content and the department's emphasis on graduating well-rounded students who communicate well, has helped him forge a very successful career. Dave also stuck around after his talk to give students advice on searching for a job and polishing their resumes. Dave's success is a great example of how empowering a degree in Computer Science can be, for the well-rounded computer scientist can deftly solve problems in a whole host of settings, from scientific to entertainment to financial, and for a variety of businesses.

Argonne Cyber Security Leaders Visit Math/CS

Argonne NATIONAL LABORATORY

Lewis Computer Science alumni Mike Skwarek and Matt Kwiatkowski came to campus Wednesday, October 12, at 2pm, to discuss cyber security opportunities for Math and Computer Science students at Argonne National Laboratory. Mike is Interim Chief Information Office and Director of Computer Information Systems at Argonne, and Matt is Acting Chief Information Security Officer and Cyber Security Program Manager at Argonne. The Department of Mathematics and Computer Science at Lewis enjoys a long history with Argonne, as several of our alumni work there. In fact, Argonne has 70 Lewis alumni as employees, with 40 Lewis alumni in IT, most of whom graduated from the Department of Mathematics and Computer Science. This is a great opportunity for Lewis Math/CS students to gain on-the-job experience with a recognized world leader. You can download Mike and Matt's presentation here to find out more about the opportunities. We are very pleased Mike and Matt came back to their *alma mater* to let our students know about all the exciting opportunities available to them in cyber security.

Future Facilities

Why Lewis for Computer Science?

- Small class sizes
- Student groups
- Top-notch faculty with professional experience
- One of the *Princeton Review*'s Top 50 Places to Study Video Game Development
- Strong ties to industry
- High-quality concentrations in cutting-edge areas
- Excellent facilities
- Undergraduate research opportunities

In Summary ...

Computer Science Rocks @ Lewis U!

Where it's cool to be a geek.