

Integrating Alumni in the Workplace

Educating the Nanotechnology Workforce: What is
Nano and Where are the Jobs?

University of Puerto Rico at Humacao

November 20, 2013

Presenter



Karen Halvorson, Ed.D.

Director of Nano Alumni Network

Former Vice President of Academic and Student Affairs

Dakota County Technical College, Rosemount, Minnesota

Why Do Colleges and Universities Connect with Alumni?

- Money/Donations
- Service on Boards
- Awards
- Prestige
- Success Stories for Marketing Purposes

Why Should We Connect with Nano Alumni?

- Nano grads are preparing for new types of jobs in emerging technologies. There are no typical job titles for these positions.
- Their skills and knowledge are cutting-edge.
- These students are pioneers in the 21st century workforce.
- We need to harness their capabilities.
- We need to keep alumni informed and engaged.
- We can add value to their career preparation.
- There can be a follow-up gap at colleges.

What is the Nano Alumni Network?

- Website located on the NACK website:
www.nano4me.org/alumni
- Website with professional resources for **alumni** of *nanotechnology undergraduate education* programs across the United States

Who does the Nano Alumni Network Serve?

The Nano Alumni Network serves nano graduates from associate degree programs at colleges across the United States and graduates from certificates such as the capstone program at Pennsylvania State University and the University of Puerto Rico at Humacao.

What are the Benefits of the Nano Alumni Network?

Benefits: Connection and Integration

- Help graduates enhance their professional opportunities
- Inform graduates of educational opportunities
- Connect graduates with nano network groups
- Help graduates integrate with the work place

Alumni Network Homepage


Brought to you by the Nanotechnology Applications and Career Knowledge (NACK) Network

[HOME](#) [STUDENTS](#) [ALUMNI](#) [EDUCATORS](#) [INDUSTRY](#) [ABOUT US](#) [PARTNERS](#)

[Home](#) | [Alumni](#)

Alumni

Welcome

We've made some big changes around here! There's a new website, updated information on preparing for jobs, and of course, a new way to connect with Alumni from across the U.S.

We're excited to tell you that we're moving our existing Alumni community to LinkedIn. Why? LinkedIn is a great tool that will help us better connect and share information with you. Not only that, you'll have all the benefits of LinkedIn right on nano4me.

About LinkedIn


How it Works
Benefits



Meet




Learn



Prepare



Work




LinkedIn:
Connect with nanoscience technology alumni from colleges and universities across the country. Sign up now and join the conversation!

Login


Featured Alumni in share



Lage von Dissen



John Butenhoff



Sebastien Maeder



- Alumni Success Stories
- Professional Associations
- Search Alumni by Location
- Alumni Council



- Webinar Postings
- Transfer Agreements by State



- Alumni Advice
- Mock Resumes and Cover Letters
- Tips for Interviews and Resumes
- Job Search Advice and Strategies
- Helpful Job Search Links

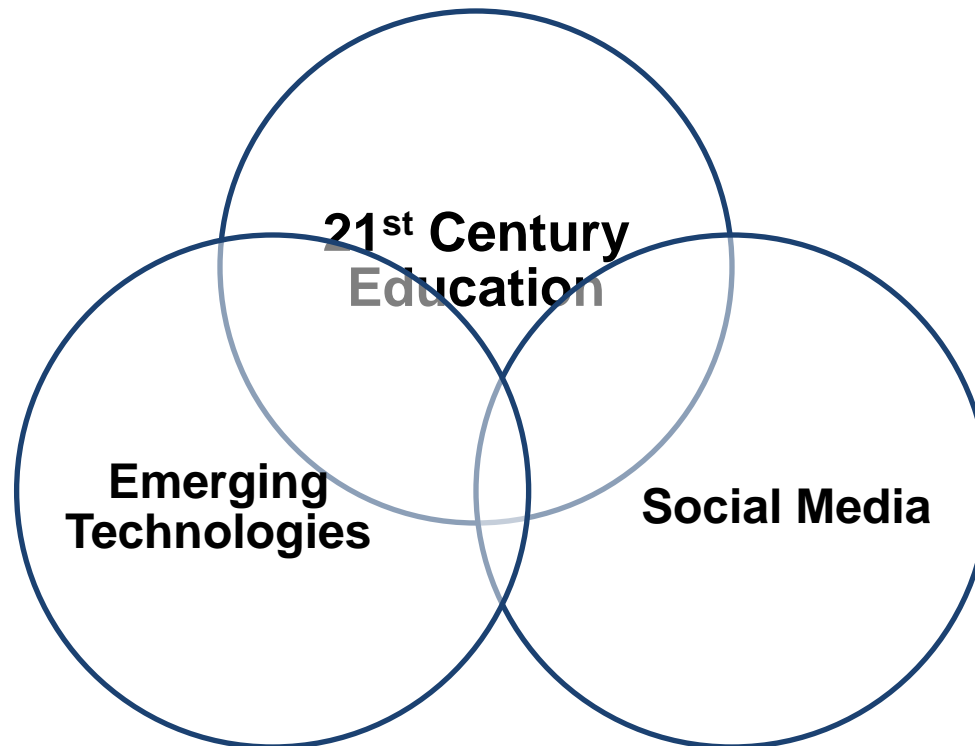


- Featured Companies
- List of Companies Who Hired Graduates
- List of Job Titles

21st Century Challenges in Education

CONVERGENCE:

Emerging Technology Meets Social Networking



Emerging Technology Trends

Top Ten Emerging Technologies for 2013

- Online Electric Vehicles (OLEV)
- 3-D Printing and Remote Manufacturing
- Self-healing Materials (biomimicry)
- Energy Efficient Water Purification
- Carbon Dioxide (CO₂) Conversion and Use
- Enhanced Nutrition to Drive Health at the Molecular Level
- Remote Sensing
- **Precise Drug Delivery through Nanoscale Engineering**
- Organic Electronics and Photovoltaics
- Fourth Generation Reactors and Nuclear Waste Recycling

Reference: King, D. (2013, February 14). Top 10 Emerging Technologies for 2013, *World Economic Forum*. Retrieved from <http://forumblog.org/2013/02/top-10-emerging-technologies-for-2013/>

Technological Trends

Six technological trends that are poised to make a big impact on education and job training in 2013 and beyond:

- Mobile apps and devices
- Massive open online courses (MOOCs)
- Game-based learning
- 3D printers
- Media literacy tools such as video editing
- Big Data

Plus one more? **Social Networking**

Why Use Social Media to Network with Nano Alumni?

Social media looks different. How do we know what to use?



Why LinkedIn? Our Need

- We want to build **professional connections** with students that graduate from our programs.
- We want to know what they are they doing 1 year, 3 years, 5 years **after they graduate.**
- We want a **sustainable connection** to alumni.

Why LinkedIn? Their Need

Current Nano Students and Graduates need to:

- **Evolve** the way they meet, interact, and communicate with their peers/colleagues.
- **Express** their knowledge, skills, and abilities to others who don't know them.
- **Establish** a presence and build their brand.

89% of companies plan to use social networks to find employees.

<http://www.forbes.com/sites/susanadams/2011/07/13/more-employers-using-social-media-to-hunt-for-talent/>

1 + jobs in a lifetime

How do you prepare for the future?

<http://online.wsj.com/article/SB10001424052748704206804575468162805877990.html>

LinkedIn Solution

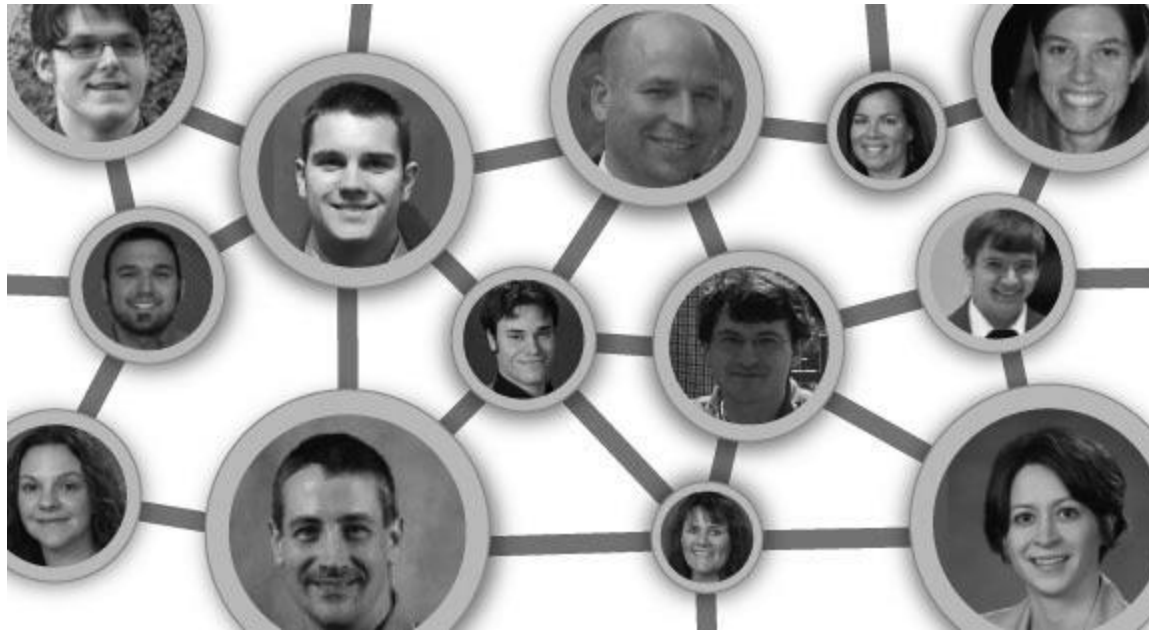
LinkedIn allows students to:

- Connect with LinkedIn's database of 200 Million members.
- Build a broader network within/outside of their industry.
- Tap into the knowledge of those in their network, and leverage relationships to collaborate in their field.
- Provides search engine searchable profiles.
- Build the Alumni's brand and resume.
- Showcase their knowledge, skills, abilities, and experience.
- Control their online presence.
- Create lasting and sustainable connections.



Professional Networking

It is so valuable – now convince your students!



Nano4Me.org Brought to you by the Nanotechnology Applications and Career Knowledge (NACK) Network

HOME STUDENTS ALUMNI EDUCATORS INDUSTRY ABOUT US PARTNERS

Home | Alumni

Alumni

Welcome

We've made some big changes around here!
There's a new website, updated information on preparing for jobs, and of course, a new way to connect with Alumni from across the U.S.

We're excited to tell you that we're moving our existing Alumni community to LinkedIn. Why? LinkedIn is a great tool that will help us better connect and share information with you. Not only that, you'll have all the benefits of LinkedIn right on nano4me.

About LinkedIn

[How it Works](#) [Benefits](#)

Meet

Learn

Prepare


Work

Featured Alumni


[in Share](#)




Lage von Dissen



John Butenhoff



Sebastien Maeder



LinkedIn:
Connect with nanoscience technology alumni from colleges and universities across the country. Sign up now and join the conversation!

[Login](#) [Join](#)

Home Page Login



LinkedIn:

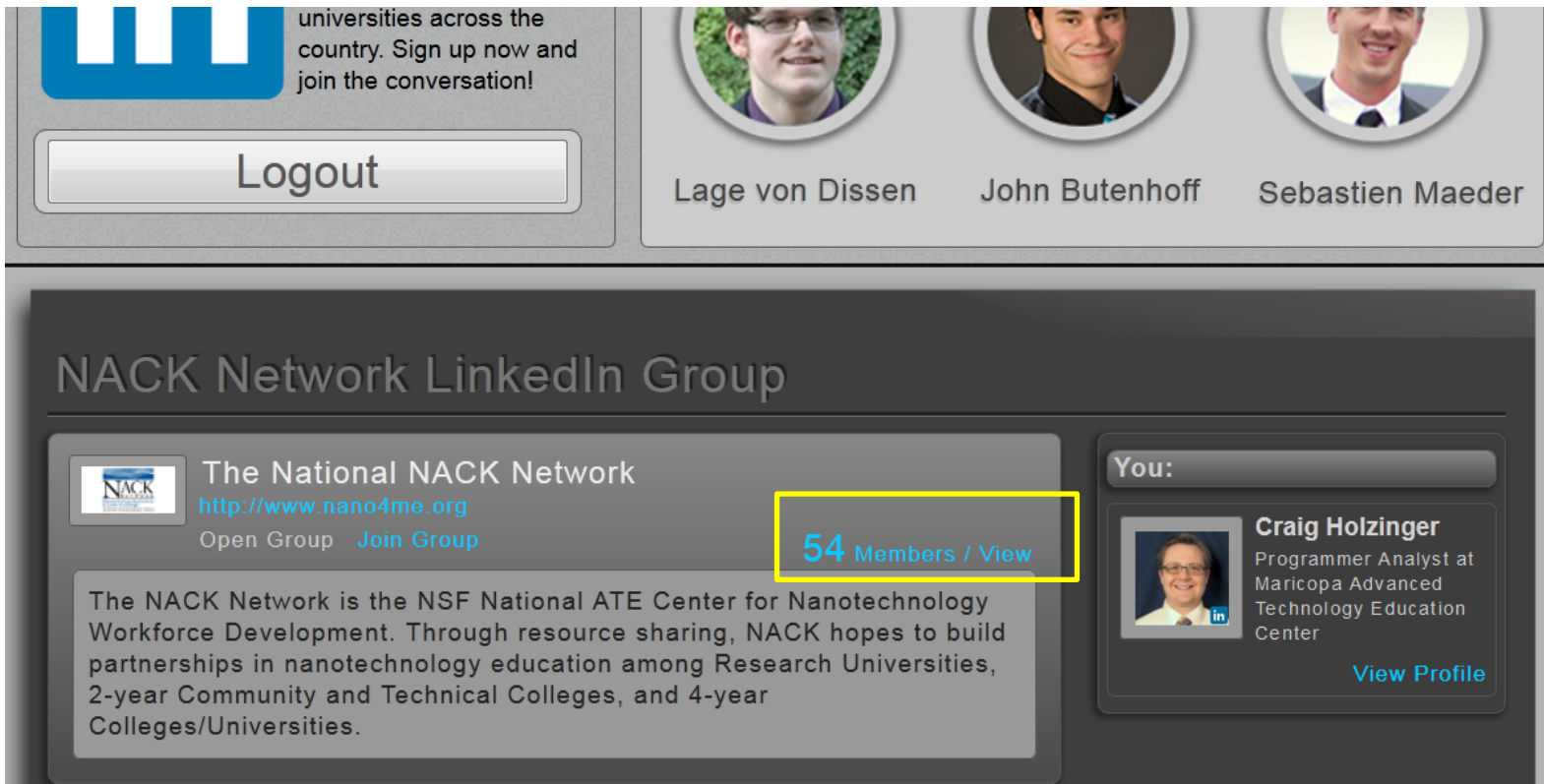
Connect with nanoscience technology alumni from colleges and universities across the country. Sign up now and join the conversation!

Login

Join

How It Works

You Have Logged-In




The screenshot shows a user interface for a LinkedIn group. At the top left, there is a blue logo with three vertical bars and the text "universities across the country. Sign up now and join the conversation!". Below this is a "Logout" button. To the right, three circular profile pictures are shown with names underneath: Lage von Dissen, John Butenhoff, and Sebastien Maeder. The main section is titled "NACK Network LinkedIn Group". On the left, there is a group card for "The National NACK Network" with a small logo, the URL "http://www.nano4me.org", and the text "Open Group Join Group". A yellow box highlights the text "54 Members / View". Below the group card is a paragraph of text: "The NACK Network is the NSF National ATE Center for Nanotechnology Workforce Development. Through resource sharing, NACK hopes to build partnerships in nanotechnology education among Research Universities, 2-year Community and Technical Colleges, and 4-year Colleges/Universities." On the right, there is a "You:" section with a profile picture of Craig Holzinger, his name, title "Programmer Analyst at Maricopa Advanced Technology Education Center", and a "View Profile" link.

universities across the country. Sign up now and join the conversation!

Logout

Lage von Dissen John Butenhoff Sebastien Maeder


NACK Network LinkedIn Group

 The National NACK Network
<http://www.nano4me.org>
Open Group [Join Group](#)

54 Members / [View](#)

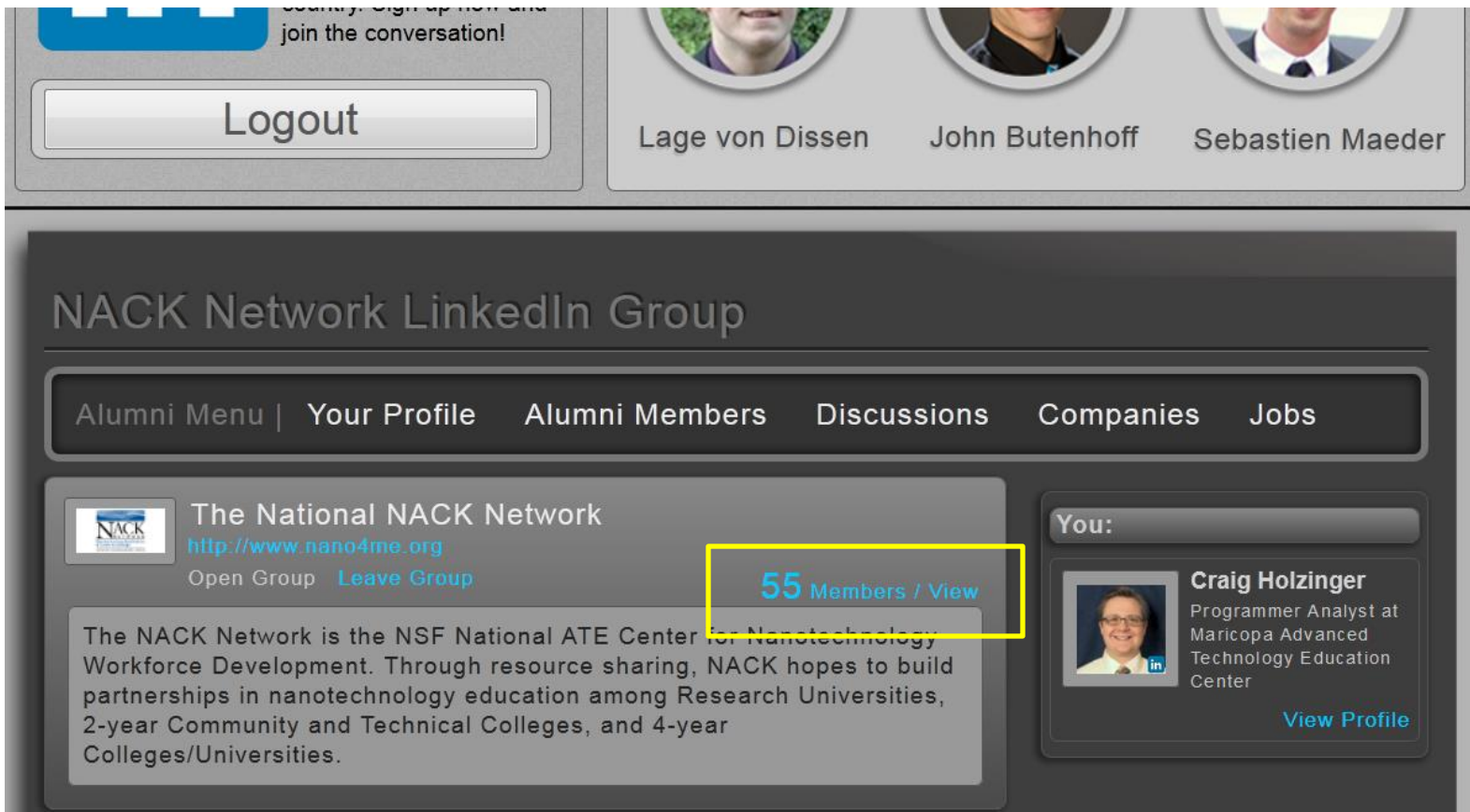
The NACK Network is the NSF National ATE Center for Nanotechnology Workforce Development. Through resource sharing, NACK hopes to build partnerships in nanotechnology education among Research Universities, 2-year Community and Technical Colleges, and 4-year Colleges/Universities.

You:

 **Craig Holzinger**
Programmer Analyst at Maricopa Advanced Technology Education Center
[View Profile](#)

How It Works

You Have Joined the NACK Alumni Group



The screenshot shows a LinkedIn interface for the "NACK Network LinkedIn Group". At the top, there is a "Logout" button and three member avatars: Lage von Dissen, John Butenhoff, and Sebastien Maeder. Below this is a navigation bar with links for "Alumni Menu", "Your Profile", "Alumni Members", "Discussions", "Companies", and "Jobs". The main content area features the group's name "The National NACK Network" with its logo and website URL "http://www.nano4me.org". A yellow box highlights the text "55 Members / View". Below the group name is a description: "The NACK Network is the NSF National ATE Center for Nanotechnology Workforce Development. Through resource sharing, NACK hopes to build partnerships in nanotechnology education among Research Universities, 2-year Community and Technical Colleges, and 4-year Colleges/Universities." On the right, a "You:" section shows the user's profile picture and name "Craig Holzinger", with his title "Programmer Analyst at Maricopa Advanced Technology Education Center" and a "View Profile" link.


country. Sign up now and join the conversation!

Logout

Lage von Dissen John Butenhoff Sebastien Maeder

NACK Network LinkedIn Group


Alumni Menu | Your Profile Alumni Members Discussions Companies Jobs

 **The National NACK Network**
<http://www.nano4me.org>
Open Group [Leave Group](#)

55 Members / View

The NACK Network is the NSF National ATE Center for Nanotechnology Workforce Development. Through resource sharing, NACK hopes to build partnerships in nanotechnology education among Research Universities, 2-year Community and Technical Colleges, and 4-year Colleges/Universities.

You:

 **Craig Holzinger**
Programmer Analyst at Maricopa Advanced Technology Education Center
[View Profile](#)

Profile View



Craig Holzinger

Programmer Analyst at Maricopa Advanced Technology Education Center,
Information Technology and Services
Phoenix, Arizona Area

[View Profile](#)

Education

BS from Indiana University-Purdue University at Indianapolis
Began in: 2005
Graduated in: 2010

Current Position

Programmer Analyst at Maricopa Advanced Technology Education Center
Programmer Analyst

Began in 2013 to Current

Write, test, and debug code. Develop and maintain object-orientated programs. Implement new types of web services using web 2.0 standards. Research and experiment with new technologies and report on these ideas during weekly meetings. Create supporting graphics and imagery to accompany MVC type programs using Adobe Master Collection. Provide social media technologies on websites as needed.

Group Memberships

You:



Craig Holzinger

Programmer Analyst at
Maricopa Advanced
Technology Education
Center

[View Profile](#)

Bookmarked Jobs:

Jobs that you currently have saved:

[Show Descriptions](#)

Sr. Programmer Analyst- SalesForce: Robert Half Technology

Sr. Programmer Analyst
SalesforceMy client in
Phoenix, AZ is looking for a
Sr. Programmer Analyst for
an exciting opportunity. In
this role you will: Participate
in requirements gathering,
design, review and planning.
Design, prototype,

Alumni Search

Featured Alumni

[in](#) Share



Lage von Dissen



John Butenhoff



Sebastien Maeder

Search Alumni Members by Location:

Select a Location: ▾

Location info will be listed here...

Alumni Members:

[Kristi J.](#)

Faculty at North Dakota State College of Science
North Dakota Area

[View Profile](#)

[Jeanne R.](#)

You:



Craig Holzinger

Programmer Analyst at
Maricopa Advanced
Technology Education
Center

[View Profile](#)

Bookmarked Jobs:


Jobs that you currently have saved:

[Show Descriptions](#)

**Sr. Programmer Analyst-
SalesForce: Robert Half
Technology**

Sr. Programmer Analyst
SalesforceMy client in
Phoenix, AZ is looking for a
Sr. Programmer Analyst for
an exciting opportunity. In
this role you will: Participate
in requirements gathering,
design, review and planning.
Design, prototype,

Group Discussion




Objective or Career Summary: What is the Difference?

Most career fields have sensitive topics and irreconcilable debates. Career advising is no exception. If you surveyed career coaches, you would likely receive different responses regardi... [Read More](#)

College and Careers

Creator: Ramie Chackan

Liked



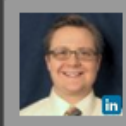
8 Qualities of Remarkable Employees

Forget good to great. Here's what makes a great employee remarkable. Great employees are reliable, dependable, proactive, diligent, great leaders and great followers... they possess a wide range of easily-defined—but hard to... [Read More](#)

Creator: Ramie Chackan

Liked

You:



Craig Holzinger

Programmer Analyst at Maricopa Advanced Technology Education Center

[View Profile](#)

Bookmarked Jobs:


Jobs that you currently have saved:

[Show Descriptions](#)

Sr. Programmer Analyst-SalesForce: Robert Half Technology


Sr. Programmer Analyst SalesforceMy client in Phoenix, AZ is looking for a Sr. Programmer Analyst for an exciting opportunity. In this role you will: Participate in requirements gathering, design, review and planning. Design, prototype,

Follow Companies




Silicon Designs, Inc.
www.SiliconDesigns.com

Followers:52
Headquarters: 1445 NW Mall St, Issaquah, WA




Description: Based just outside of Seattle, Washington, USA, Silicon Designs was founded in 1983 with the goal of improving the accepted design standard for MEMS capacitive accelerometers. At that time, industrial-grade accelerometers on the market were bulky, highly fragile and costly. The engineering team at Silicon Designs listened to the needs of customers who required more compact, sensitive, rugged and reasonably priced accelerometer modules and chips that also offered higher performance. Resultant product lines were designed and built to surpass customer expectations. The company has grown steadily over the years, though its core competency remains accelerometers, with the business philosophy of "Make it better, stronger, smaller and less expensive" maintained to this day. Visit www.silicondesigns.com to learn more.




Hysitron, Inc.
www.hysitron.com

Followers:223
Headquarters: 9625 WEST 76TH ST., MINNEAPOLIS, MN



Description: Hysitron® is the world leader in developing nanomechanical test instruments and has designed cutting edge technology for the scientific community since 1992. As the pioneers of in-situ imaging with nanoindentation and nanomechanical property measurement capabilities, Hysitron has grown with the nanotechnology market for almost two decades. In addition to nanoindentation and microindentation, Hysitron's instrument capabilities include tribology, modulus mapping, dynamic mechanical analysis, acoustic emission monitoring, electrical contact resistance and in-situ SEM and TEM nanomechanical testing. Our

You:



Craig Holzinger
 Programmer Analyst at
 Maricopa Advanced
 Technology Education
 Center

[View Profile](#)

Bookmarked Jobs:

Jobs that you currently have saved:

[Show Descriptions](#)

Sr. Programmer Analyst-SalesForce: Robert Half Technology

Sr. Programmer Analyst SalesforceMy client in Phoenix, AZ is looking for a Sr. Programmer Analyst for an exciting opportunity. In this role you will: Participate in requirements gathering, design, review and planning. Design, prototype,

Suggested Jobs

Suggested Jobs:

Jobs that LinkedIn thinks you might be interested in:

Odyssey Information Services

Programmer Analyst
Shreveport, Louisiana Area
[Apply / Manage](#) [Bookmark](#)

Apollo Group - Institute for Professional Development

Creative Copywriter
Phoenix, Arizona Area
[Apply / Manage](#) [Bookmark](#)

Experis

Digital Media Specialist
Colorado Springs, Colorado
[Apply / Manage](#) [Bookmark](#)

ON Semiconductor

Programmer Analyst
Phoenix, Arizona
[Apply / Manage](#) [Bookmark](#)

Mindspace

Senior Art Directors: Is your job better than this?
Phoenix, Arizona Area
[Apply / Manage](#) [Bookmark](#)

You:



Craig Holzinger
Programmer Analyst at
Maricopa Advanced
Technology Education
Center

[View Profile](#)

Bookmarked Jobs:

Jobs that you currently have saved:

[Show Descriptions](#)

Sr. Programmer Analyst- SalesForce: Robert Half Technology

Sr. Programmer Analyst
SalesforceMy client in
Phoenix, AZ is looking for a
Sr. Programmer Analyst for
an exciting opportunity. In
this role you will: Participate
in requirements gathering,
design, review and planning.
Design, prototype,

Key Words for Working with Alumni:

**CONNECTIONS
INTEGRATION
SUSTAINABILITY**

QUESTIONS???