

Career Basics for Physics Majors: How to Make Your Work Work For Employers

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- Assist students in discovering career pathways, university resources, and career prep
- Support faculty in post collegiate messaging
- Re-introduce employers to our College of Science students



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- Without "Science"...



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- Re-introduce employers to our College of Science students
- Without "Math" you don't have a degree
- Without "Physics" you don't have a college
- Without "Science" you don't have a chance



What You'll Have When We're Done

You will have a/an:

- Starting point for discovering CAREER OPTIONS
- Understanding on the marketing science of RESUMES and its components
- An overview of NETWORKING (Power of Three)
- Secrets of using LINKEDIN



Georgia Tech Career Center





Georgia Tech Career Center Program Guide



PROGRAM

GUIDE

PAGES 2 - 9: TOPICS IN CHRONOLOGICAL ORDER

PAGES 10 - 11: PROGRAMS IN CHRONOLOGICAL ORDER BY TOPIC





JANUARY

DATE	EVENT	TIME	LOCATION
1/20	FEDERAL RESUME WRITING	12:00PM - 1:00PM	CLOUGH 423
1/20	GRADUATE INTERNSHIP PROGRAM CHAT HOUR	2:00PM - 3:00PM	VIRTUAL- RSVP IN CAREERBUZZ
1/21	RESUME REVIEWS WITH EMPLOYERS & PROFESSIONALS	12:00PM - 4:00PM	BILL MOORE FESTIVAL SUITE
1/25	NAVIGATING THE JOB & INTERNSHIP SEARCH	2:00PM - 3:00PM	CLOUGH 423
1/25	CAMPUS CLOSET FASHION SHOW	11:00AM - 1:00PM	BILL MOORE FESTIVAL SUITE
1/26	CAREER FAIR PREP	3:00PM - 4:00PM	CLOUGH 152
1/26	CAREER ASSESSMENTS FOR PHDS	4:00PM - 5:00PM	STUDENT SUCCESS CENTER 292 CONFERENCE ROOM
1/27	VIRTUAL MOCK INTERVIEWS WITH EMPLOYERS & PROFESSIONALS	9:00AM - 3:15PM	VIRTUAL- SIGN UP IN CAREERBUZZ
1/28	GRADUATE INTERNSHIP PROGRAM CHAT HOUR	12:00PM - 1:00PM	VIRTUAL- RSVP IN CAREERBUZZ
1/28	MOCK CAREER FAIR WITH SUPP	1:00PM - 4:00PM	KLAUS ATRIUM
1/28	VIRTUAL MOCK INTERVIEWS WITH EMPLOYERS & PROFESSIONALS	9:00AM - 3:15PM	VIRTUAL- SIGN UP IN CAREERBUZZ
1/31	INTERVIEW PREP: HOW TO IDENTIFY & HIGHLIGHT YOUR SKILLS	4:00PM - 5:00PM	IN-PERSON TBD

RSVP FOR ALL WORKSHOPS IN CAREERBUZZ. ROOMS AND DATES MAY NEED TO CHANGE FOR VARIOUS REASONS.



Motto:

"SMART PEOPLE WILL DO SMART THINGS"



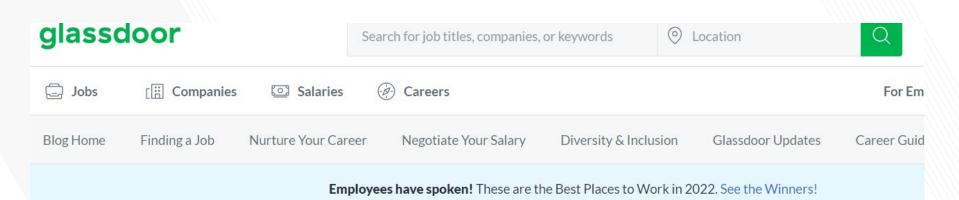
What can you do with your degree?

Ask the question. Look it up. Research!

Use your class subjects, projects, assignments as leads.

Ask the people around you, internet...







Career Development Tips

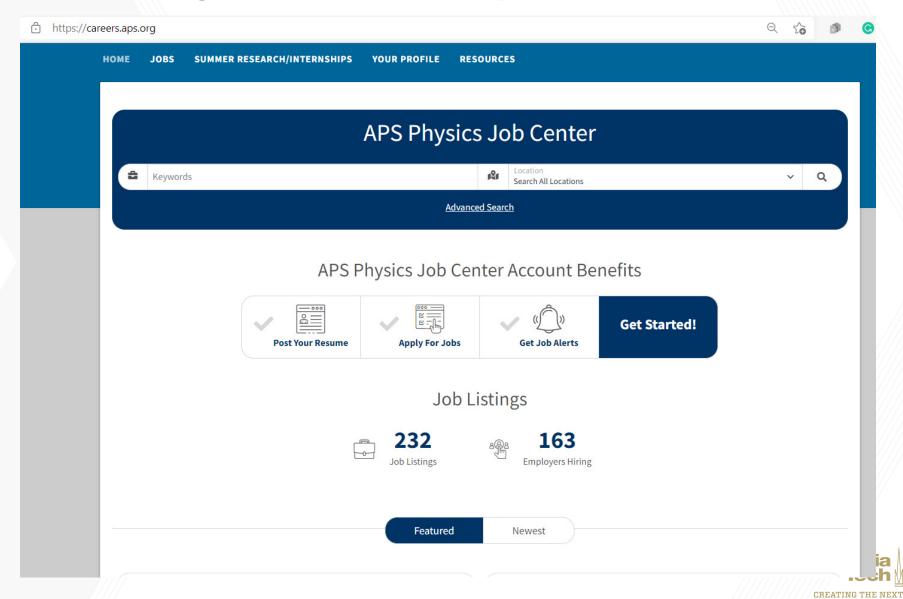
The Best Jobs and Career Advice for Physics Majors

Posted by Glassdoor Team

Career Advice Experts

Last Updated June 29, 2021





Short list of companies that hire Physics Majors:

- Google
- Boeing
- Lockheed Martin
- NASA/JPL
- Tesla/SpaceX
- Facebook
- JPMorgan Chase & Co (Web developers, software engineers)
- SRC (STELR program)
- Facebook (Technology Communications)
- the Military (Navy)
- TAG Cyber
- Rochester Gas & Electric
- Galson Laboratory (laboratory analyst)
- Gilbane Building Company (office engineer)
- Ametek Aerospace
- KoamTac (Engineer)
- IBT Laws
- IQE, Inc.
- NYU Medical Center
- Axoni (software engineer)
- Future Colossal (physical design tech)
- AdTheorent (analyst)
- Pfizer



Discovery for Career Options: Onet online





Discovery for Career Options: Onet online

Worker Characteristics

Abilities
Occupational Interests
Work Values
Work Styles

Cross Occupation

Occupational Requirements

Work Activities: General • Intermediate • Detailed Organizational Context Work Context

Worker Requirements

Worker-oriented

Skills • Knowledge Education

o*net°

Workforce Characteristics

Labor Market Information Occupational Outlook

Experience Requirements

Experience and Training Skills – Entry Requirement Licensing

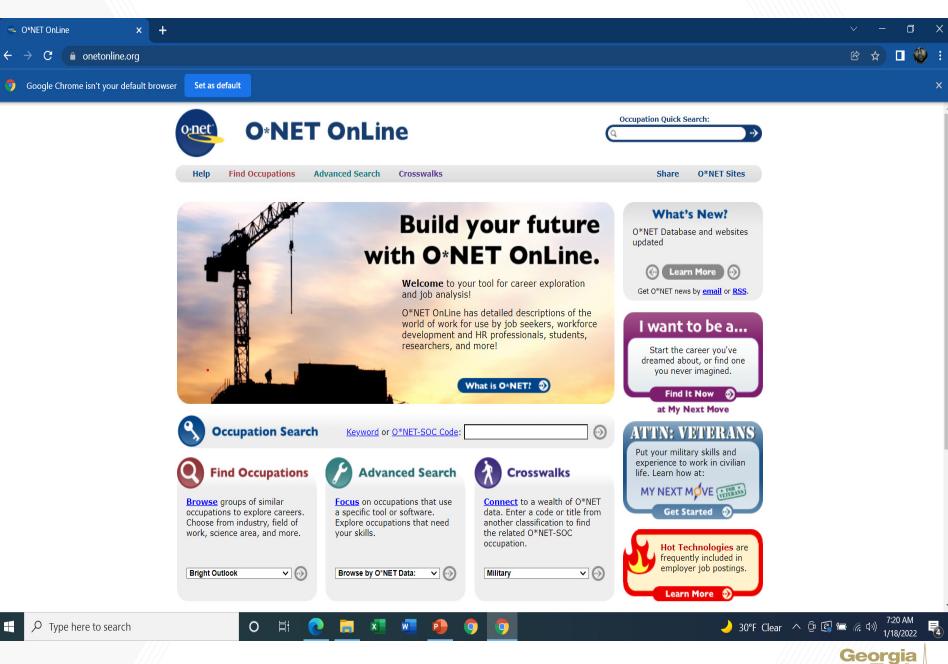
Occupation Specific

Occupation-Specific Information

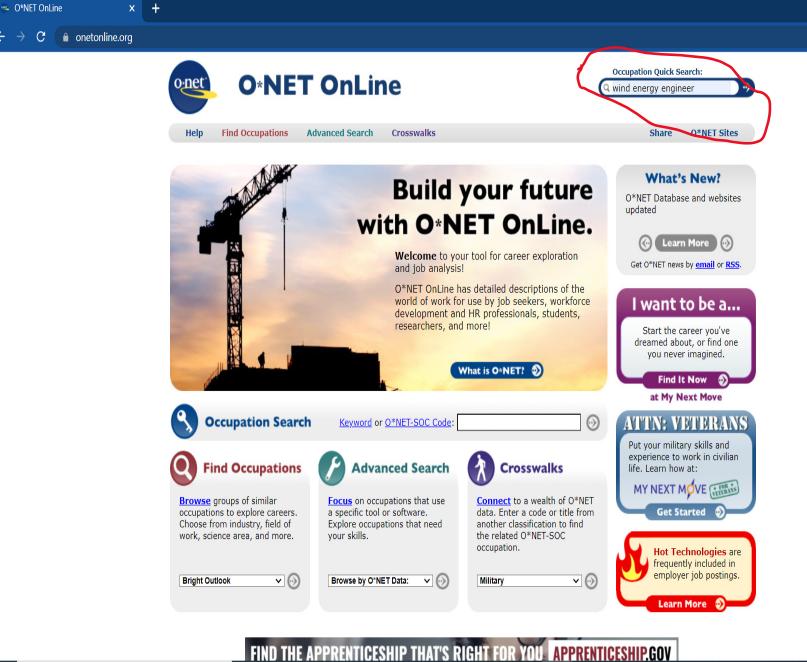
Title • Description Alternate Titles Tasks Tools and Technology

Job-oriented



























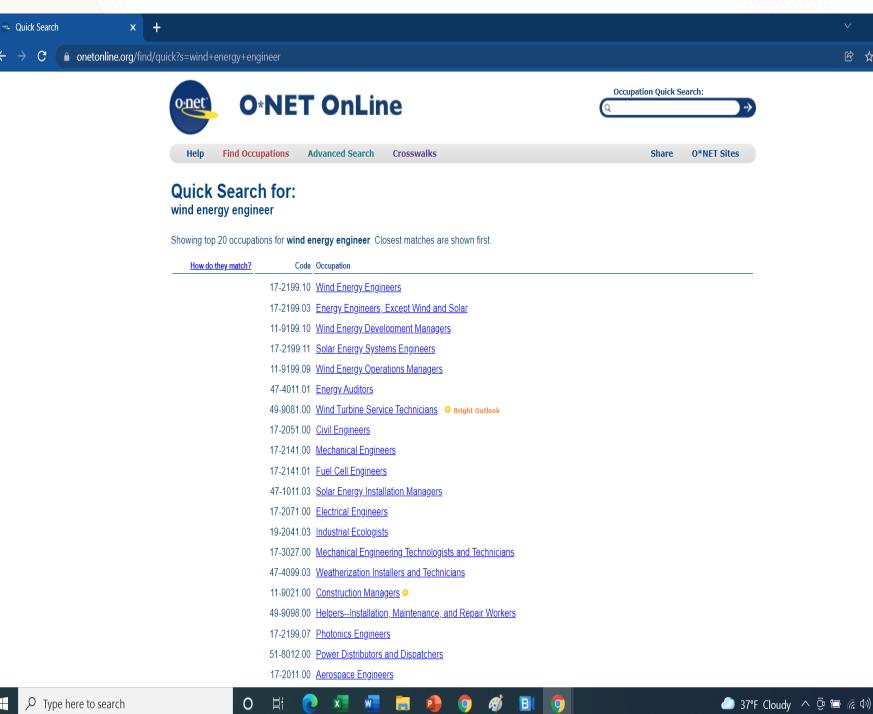




















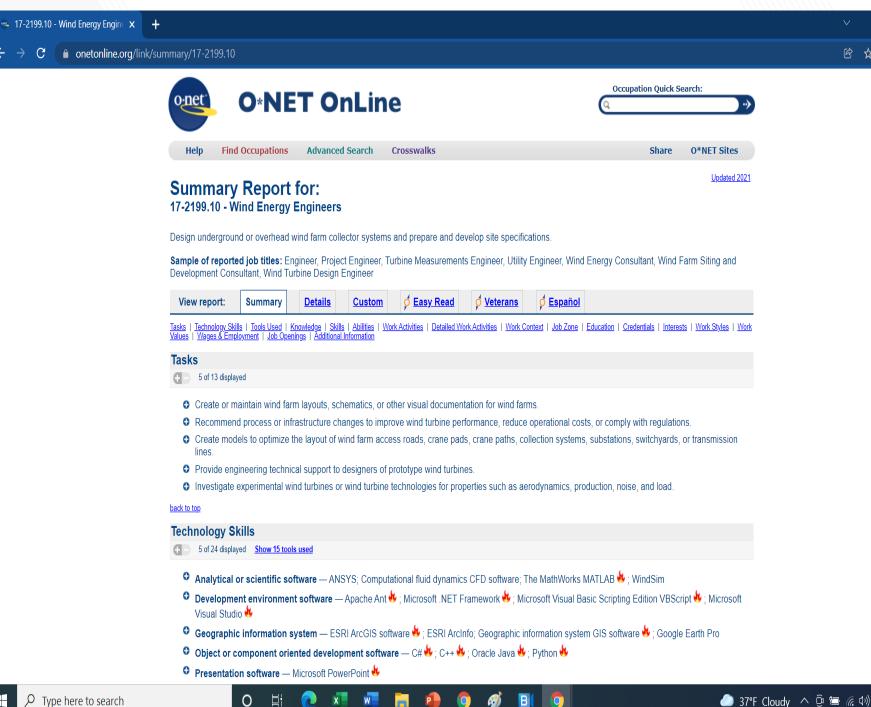
































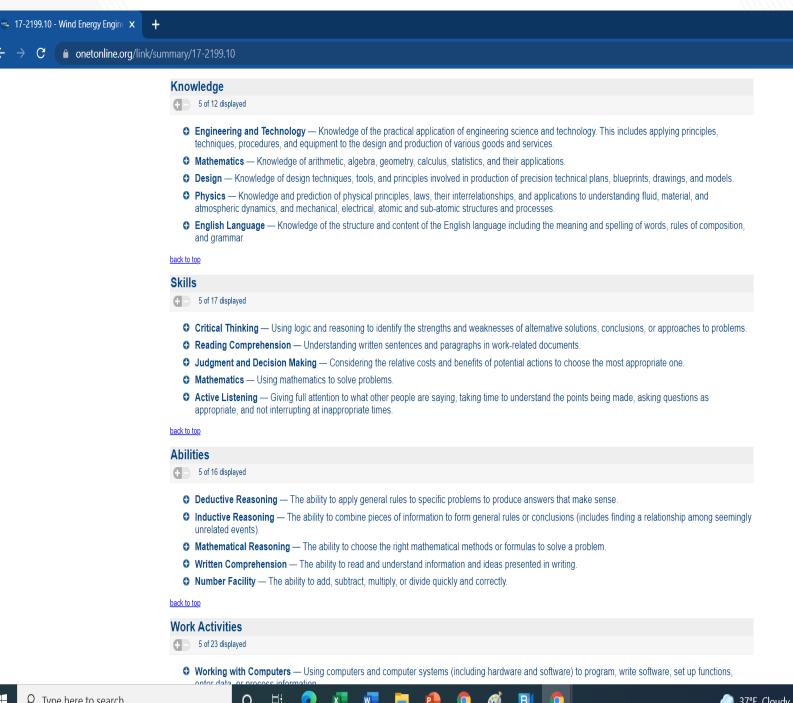
















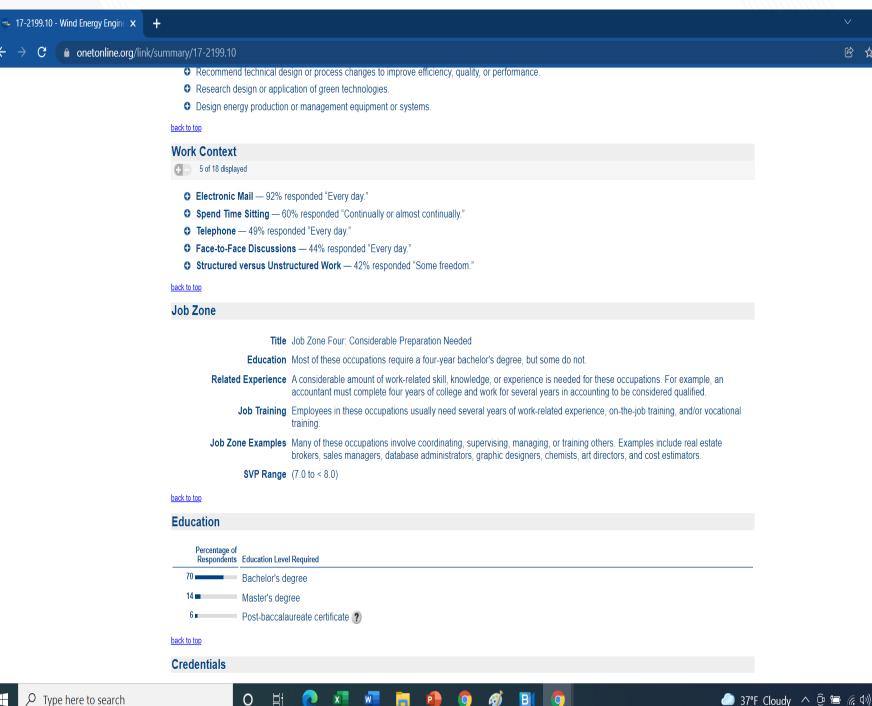














































Marketing Science of RESUMES and its components



Most resume trainings will teach you the overall basics.

It will be comprehensive.

You will be "par" for the course.

You will at least be in the game.



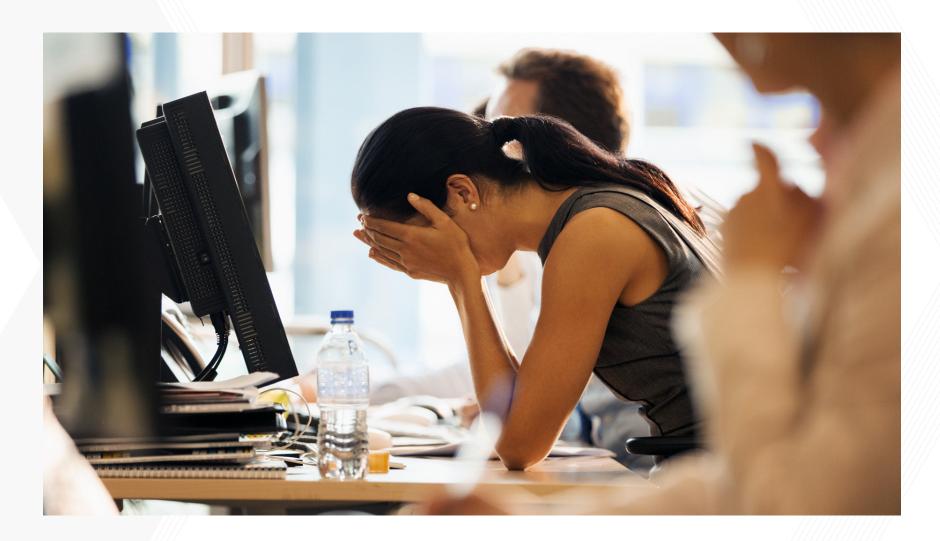
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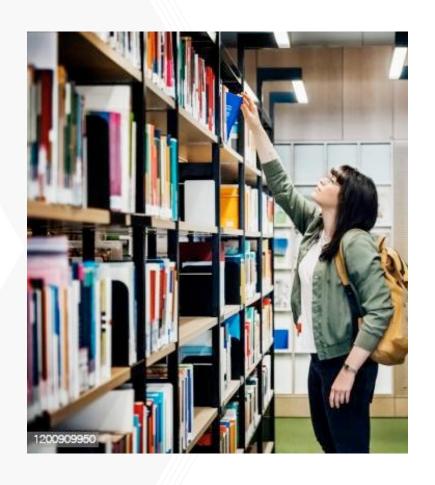


- Connects you to perspective employers
- Shows where you've been
- Reveals what you've worked on
- Provides details about skills, implementation
- Gives an idea about what you're good at
- Emphasizes both technical and essential areas
- Answers questions a recruiter will have about you
- Contains keywords (relevant terms) for employers
- Uses only nouns and verb phrases
- Sectionalizes information for quick read















PHYSICS RESUME

(404)999-9999 ♦ gburdell9@gatech.edu

EDUCATION

Georgia Institute of Technology B.S. in Physics Certificate in Biophysics August 2015 - May 2019 (Projected) Current Overall GPA: 3.39

EXPERIENCE

Researcher at Complex Rheology And Biomechanics (CRAB) Lab January 2017 - Present Georgia Tech

- · Explored use of structure in non-homogenous environments in locomotion of Chionactis snakes and C. elegans
- Comparatively studied lateral undulatory mechanics between Chionactis snakes and C. elegans
- $\cdot \ \ Designed \ and \ executed \ experiments \ to \ study \ corrective \ behavior \ in \ lateral \ undulatory \ snake \ locomotion$
- · Designed and built snake-like robot using Arduino to emulate lateral undulatory muscle behavior
- · Took on independent project characterizing C. elegans' locomotion in natural environments
- · Presented progress weekly on all projects mentioned in lab meetings

Facilities Maintenance

May 2016-August 2016

Montreat Conference Center

- · Worked full time maintaining facilities at Montreat Conference Center in Montreat, North Carolina
- · Performed routine cleaning around the conference center campus
- · Set up event spaces for conferences
- · Monitored the front desk to answer questions, and manage the lost and found

RESEARCH

AICES Lab

May 2017 - July 2017

 $Rheinisch-Westf\"{a}lische\ Technische\ Hochschule\ (RWTH)\ Aachen$

- · Three month summer Undergraduate Research Opportunities Program (UROP) in Aachen, Germany
- · Learned and worked in the coding language Julia
- · Coded the FEAST method to solve large sparse eigenproblems
- · Evaluated conditions for spectrum slicing and their effect on computational speed
- · Reported progress directly to my supervisor twice a day
- · Presented research both in a paper and with a poster

Complex Rheology And Biomechanics (CRAB) Lab

January 2017 - Present

Georgia T

Previously spent time in CRAB Lab for class credit, but now work for pay. See Experience section for more information.

PROJECTS

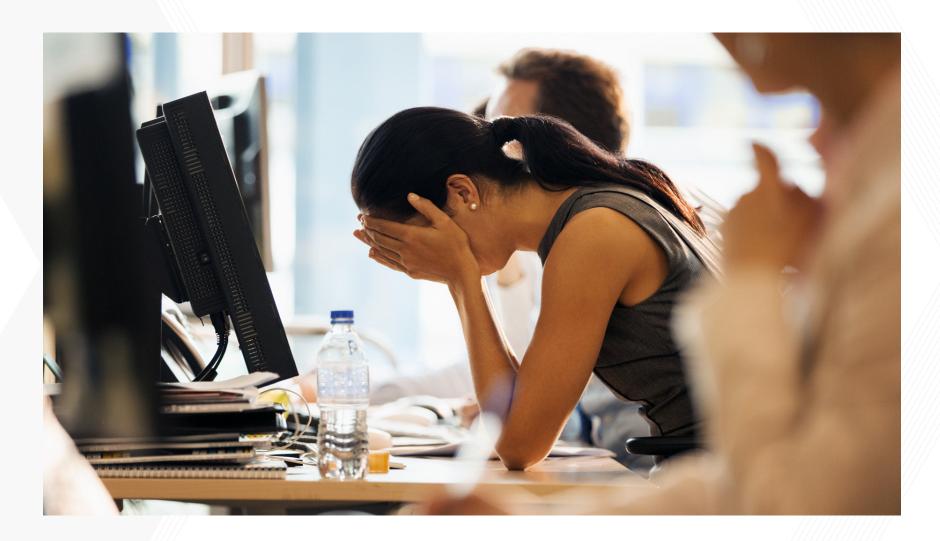
Neurophysics

Fall 2018

- Tested assumption made in Beeler Reuter, 1977, regarding relationship between external calcium ion concentrations and potassium current conductance in cardiac action potentials
- · Tested hypothesis with dissected zebrafish hearts exposed to inhibitory neurotoxins









Open Question:

If your resume was hired to do a job, what would that job be?

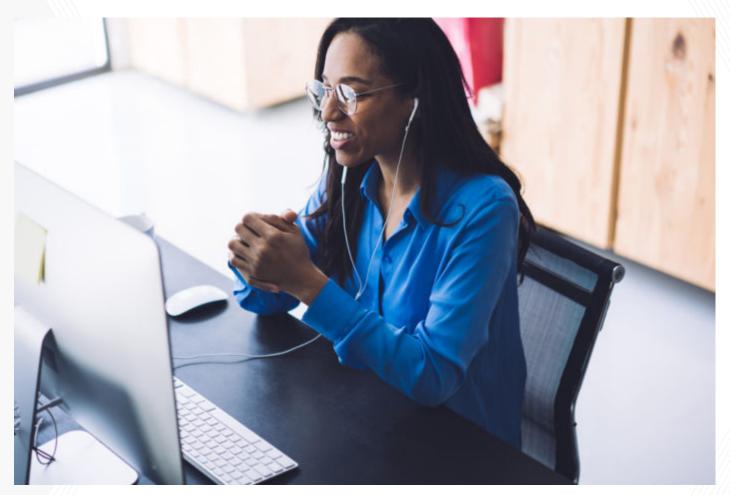


Open Question:

If your resume was hired to do a job, what would that job be?



The job of the resume is to get you the interview.





The resume should be written to par and cover all the basics. The resume should be intriguing enough to draw interest and questions.





The Resume Basic Sections

- Heading: Name, location, contact info
- Summary "Intro to Intrigue"
- Core Competencies: No more than 8 bullet points
- Education: Ga Tech and high school basic info
- Experience:

Internships/Co-op

Projects: Usually class, can be group or individual

Research: Necessary for Physics majors

Leadership: Volunteer work, campus & community

This listing is also your resume section <u>order</u>, unless/until you work in your field as intern/co-op, or research assistant. Then, Experience is moved to second resume section.



Resume Crafting and Rationale

- Experience on your resume will be listed in reverse chronology
- Use Bold and separate sections for ease of read.
- No complete sentences; just nouns and verb phrases.
- Allow your resume to be at a length that makes sense.
 If you have something to say, say it. But remember this document's job is to get the interview.



Summary- A quick snapshot of three important factors that can spark intrigue.

- Who you are
- What you do
- What is your passion
- What is your value



Summary- A quick snapshot of three important factors that can spark intrigue.

- Who you are- Senior in Physics pretty good GPA
- What you do- Involved in clubs, tutor, golf team
- What is your passion- how wind influences nature
- What is your value- collecting accurate data for research



Summary- A quick snapshot of three important factors that can spark intrigue.

- Who you are
- What you do
- What is your passion
- What is your value

James Stringfellow

Atlanta GA, 30313 james.Stringfellow@gatech.edu 404-452-XXXX

Summary:

A current senior of the College of Sciences at Georgia Institute of Technology majoring in Physics (3.87 GPA). President of the Physics Club, Peer Academic Coach, and member of the GT Golf Team. Passionate in turbine technology and its impact on energy. Excited to work with an organization assisting the accurate collection of data for research purposes.



Core Competencies:

No less than 6 and no more than 8 bullet points of core skill set related to the position that have been acquired by you.

Core Competencies:

- physics modeling
- principles of mechanics
- properties such as aerodynamics, production, noise
- mathematics, design, and physics
- compiling, categorizing, calculating, verifying information or data
- providing information to supervisors, co-workers, and subordinates
- critical thinking, deductive & inductive reasoning



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Education Internship/Research/Projects

- Shows implementation of listed skills
- Provides practicality of physics major
- Taken from class, usually
- Contains verb phrases (no sentences, except for project description)
- Provides tasks
- Showcases depth of work in topic area
- Updated every semester
- Listed first day of assignment
- Can be group or individual
- Might be "self assigned"
- Originates in core classes. Probably.

Note: Your Projects section will be focused on your major, beginning your second year. Culminates in senior design/capstone. Usually originates as a class assignment, but any/all projects can count, however.



Education Internship/Research/Projects

- Complements Projects
- Shows further knowledge in field and lab
- Includes data analysis, a valuable skill
- Reveals combined work/study, problem/solution
- Adds depth and nuance to knowledge base



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- providing information to supervisors, co-workers, and subordinates
- critical thinking, deductive & inductive reasoning

Education:

Georgia Institute of Technology, College of Sciences Major: Bachelor of Science in Physics (3.87 GPA)

Expected Graduation: Spring 2023



Education Internship/Research

Summer Internship

Georgia Environmental Protection Agency May 2020 – August 2020 Collected data on structure of Earth and the natural phenomena that affect Earth's surface, such as earthquakes and volcanic eruptions. As a team, read and recorded data on the Brevard fault zone in Georgia.

Undergraduate Research Assistant Koh Lab of Emory University (Pediatric Epilepsy Research) September 2020- Present Shadowed Dr. Koh during clinical rotations

- Responsible for evaluating efficacy of ketogenic diet combined with pioglitazone in Dravet Syndrome
- Conducted genotyping, PCR assays, gel electrophoresis, febrile seizures, brain slicing, and immunohistochemical staining



Experience

- Pertains solely to work for compensation
- Shows recruiter how you've used your time*
- Can come from any/all paid work
- Provides further implementation of skills
- Contains 2-3 verb phrases of duties/tasks
- Becomes second resume section when internship, co-op, research assistantship attained



Leadership

- Pertains solely to volunteer work
- Originates on campus and/or community
- Provides crucial essential skill(s)
- Can come from club offices held
- Exhibits "socialization"
- Requires updating every semester
- Can serve as source for interview responses
- Shows your humanity



Maintain Your Resume

- Update at the beginning of every semester
- Translate/transfer your physics work into action
- Think like a recruiter to include content
- Be prepared to talk about anything listed
- Tailor information for company, as needed*
- Avoid 'arty' fonts, extraneous design details NOT TEMPLATES!
- Make it about who you are, what you've done
- Think "Exposure" for now, not "Experience"



Maintain Your Resume: Be organized











NETWORKING- What to say 101

GROUP EXERCISE





NETWORKING- What to say 101

GROUP EXERCISE



Engaging simple conversations
Giving information to be repeated
Answering the all-important interview question







- What to say (Don't say too much!)
- When to say it (Know entry points)
- Be intentional
- Listen & be a resource: send leads, articles, invitations to events.







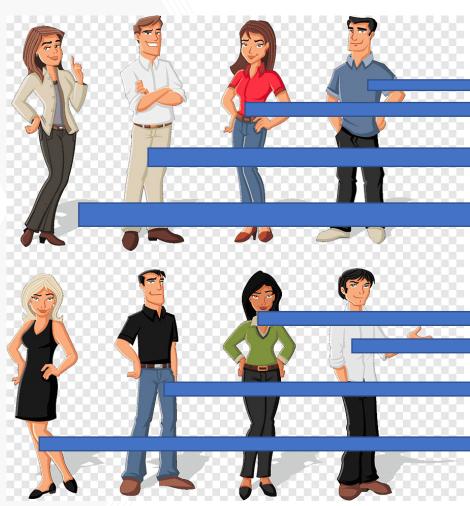
















- Take your resume and put it in LinkedIn.
- Consistent messaging







6 Degrees of Separation

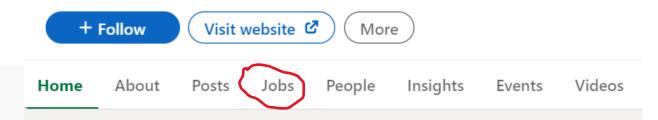




Linkedin is a DATA BASE for professionals to display their employment history and details.

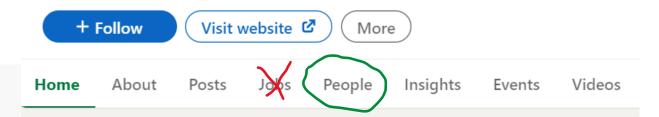














Linkedin







3rd



1st























Coaching is unlocking a person's potential to maximize their growth.

John Whitmore





Georgia Institute of

Keller Graduate School of

Management of DeVry

Technology

University

James Stringfellow

Georgia Tech Career Educator for the College of Sciences Atlanta, Georgia, United States · Contact info

500+ connections

Open to

Add section

More

Show recruiters you're open to work — you control who sees this. Get started

Share that you're hiring and attract qualified candidates.

Get started

Add profile in another language

Edit public profile & URL



0





Explore Howard MSW Online Concentrate in direct or macro practice. No GRE required. Part-time track.



Build Data Skills Online Complete the Harvard Business Analytics Program online in 9 months.



Capture new customers.

Sell easily from your site with built-in marketing tools to help you grow.

People also viewed



Kameca Nash, MBA, CSM, CPO, PMP • 1st

Project Manager / Scrum Master

Message



John Dunbar • 2nd

Dean of Advanced Technology and

Engineering at Lanier Technic

Connect





Private to you

Let's improve equal access to opportunity

Help promote fairness and diversity on LinkedIn by answering a few demographic questions. We'll keep your responses confidential and secure. Learn more







×













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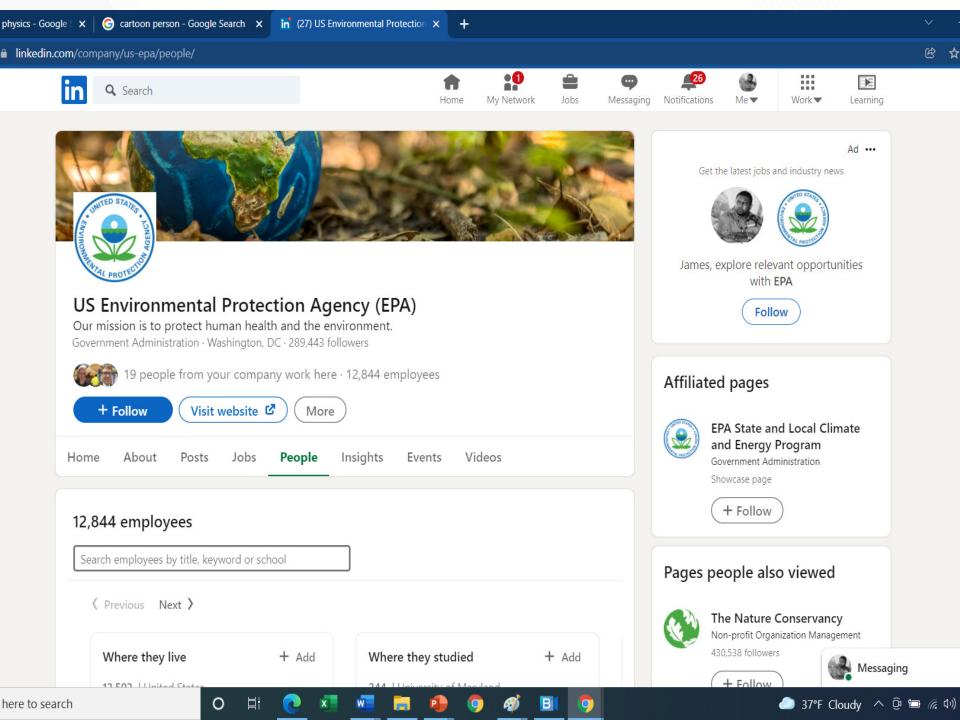
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Insights



Events









Ex-coworkers that work here

Brian E. · 3rd+

Message







US Environmental Protection Agency (EPA)



Videos

More

Visit website 2

+ Follow





JaNay O. Wilborn · 2nd Government Affairs Liaison -Region IV



8 shared connections



People

Daniel Blackman · 2nd "The people who are crazy enough to think they can chang...



15 shared connections



Brandy Hairston · 2nd at US Environmental Protection Agency (EPA)



38 shared connections



John Wambaugh · 3rd+ Research Physical Scientist at US EPA

Experienced professional with background in incident management, public health...

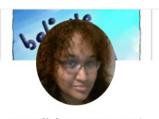
Message



Gayle Hagler · 3rd+ Associate Director at US Environmental Protection Agency (EPA)

Message

See all ex-coworkers



Annalishea Perez · 2nd Tech at US Environmental Protection Agency (EPA)



18 shared connections



Keriema Smith ... 2nd Deputy Director, Enforcement and Compliance Assurance Division



1 shared connection



Co-Chair, White House Environmental Justice Regional...



21 shared connections



0









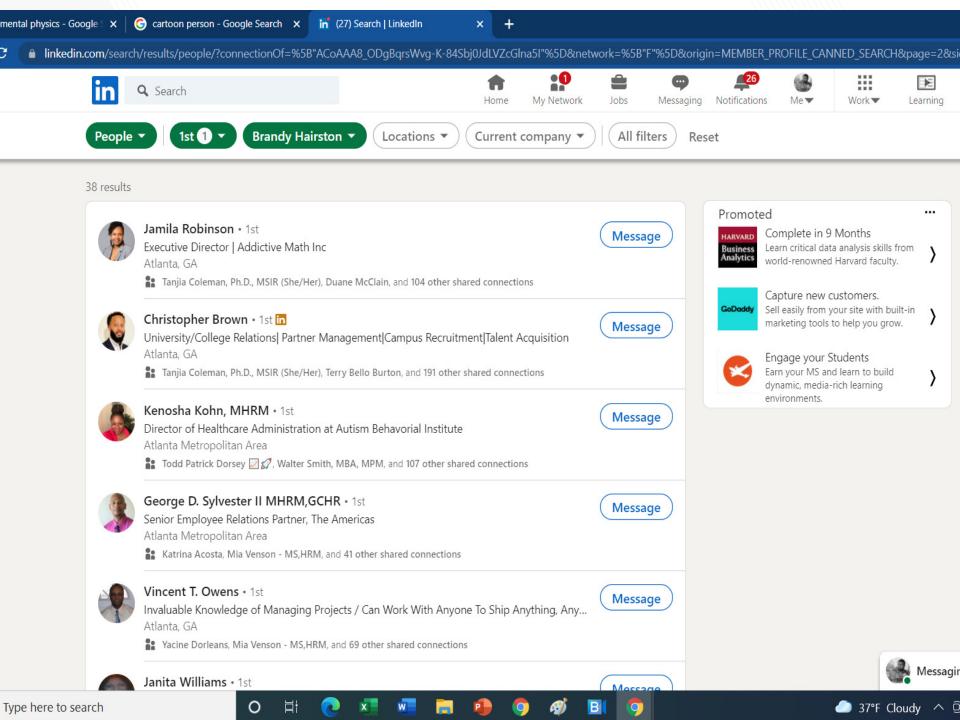


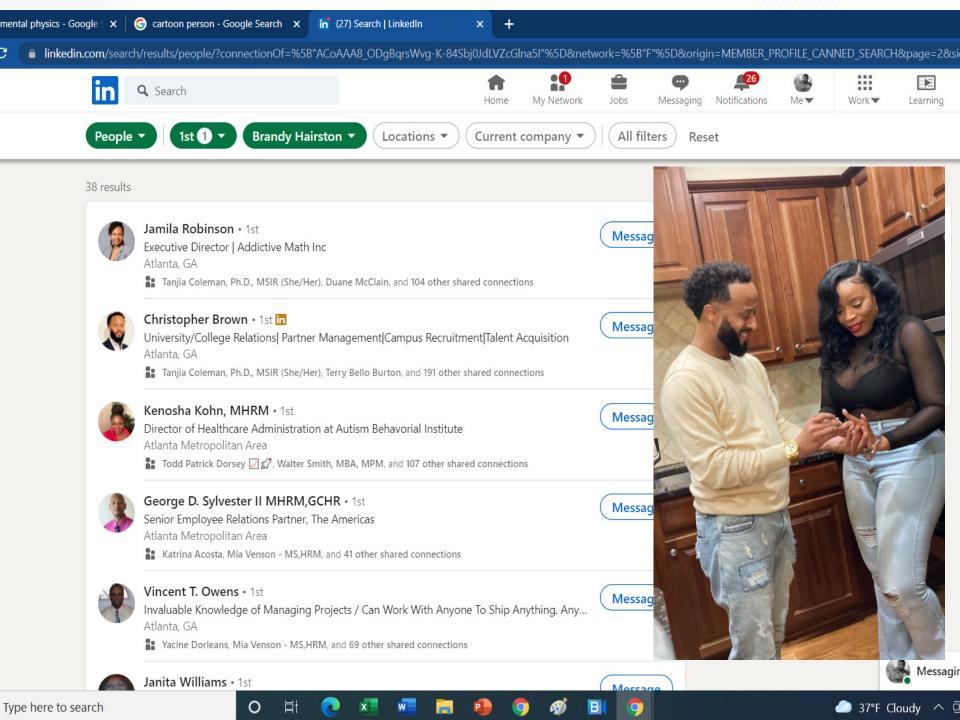












When to make your move...

- Get involved with groups and organizations
- Be social with all level of events
- Invite people to have conversations
- Informational Interviews...



Make Your Work Work

- Translate/transfer physics principles to real-world application
- Think like a recruiter
- Ask yourself what you'd be looking for in a new hire
- Update your materials early every semester
- Remember the application process has two steps, not one
- Write out your introduction and memorize
- · Teach yourself to talk about what's on that resume. Every word.
- Review job postings on CareerBuzz, company websites
- Never say "I can solve problems." Tell what problems and how
- Provide enough details so a recruiter can see you at it



Make Your Work Work





Make Your Work Work hank YOU

