



# RESUME + INTERVIEW TIPS

BMEGSA and ECS 2021



# HOW YOU SHOULD FORMAT A CV?

# CVs: Category Headings

- Name
- Contact Information
- Education:
  - back to bachelor's degree.
  - Title of dissertation and advisor(s) name(s).
- Publications and Presentations:
  - Full bibliographical citations
- Awards, Honors, and Distinctions:
  - Awards, prizes, fellowships etc.
  - Undergraduate and graduate
- Teaching Experience
  - Full course titles, and short description. Indicate if taught the same class multiple times.
- Professional Activities and Academic Committee Work
  - Service Activities, graduate student organizations, advising, etc.

# CV Headings cont.

- Areas of Teaching Interest- Optional
  - List at most 4-5 areas.
- Research Experience
  - Work that was outside your coursework and dissertation
- Other Professional Experience
  - Post-college jobs that aren't covered in other categories
- Professional Affiliations
- References
  - Names, titles, contact information

[https://cstw.osu.edu/sites/default/files/2020-08/cv\\_0\\_0.pdf](https://cstw.osu.edu/sites/default/files/2020-08/cv_0_0.pdf)

## Sarah Buckeye

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### EDUCATION

The Ohio State University (OSU), Columbus, OH

**Ph.D. in Mechanical Engineering** | GPA: 4.0

August 20XX

**Thesis:** "Design and Implementation of a High Speed Helical Gear Efficiency Test"

**M.S. in Mechanical Engineering** | GPA: 3.9

May 20XX

The University of Akron, Akron, OH

**B.S. in Mechanical Engineering** | GPA: 3.9

May 20XX

### QUALIFICATIONS

- 4 years' experience with Design Manufacturing, Design of Machine Elements, Control Systems Design, and Automation
- Knowledge of Vehicle Dynamics, Power Train Dynamics, Aerodynamics, Finite Element Methods, Continuum Mechanics, Design of Experiment (DOE), and JMP
- Software: SOLIDWORKS, ProE, MATLAB, Simulink, ANSYS, LabVIEW, MSC ADAMS, Fortran
- Graduate level coursework in Discrete, Continuous and Nonlinear Vibrations, Advanced Engineering Acoustics, Automotive NVH Control, and Digital Signal Processing
- Data analysis and strong problem solving skills enhanced through 4+ years of professional and academic project teams

### RESEARCH EXPERIENCE

**U.S. Department of Transportation: 123 Center**

January – November 20XX

Research Contractor under Dr. M. Buckeye

- Applied for and received grant for \$100,000 from ABC Corporation to fund research initiatives
- Set up hardware in the loop simulation integrating TruckSim, MATLAB, and D-Space Control desk with brake hardware
- Validated complex system through detailed experiments and data analysis; documented findings
- Developed and experimentally validated linear and nonlinear analytical models of hydraulic bushings with alternate configurations in both frequency and time domains

**The Ohio State University**, Advanced Diagnostics Research Group

August 20XX – Present

Research Assistant, Dr. R. Standard

- Collaborate with Auto Car manufacturers to model three wheel vehicles in ADAMS-Car
- Measure experimental suspension characteristics and hard points of ATV model 1
- Create performance and safety metrics for three-wheeled vehicles; tested under various maneuvers to determine matrix of feasible CG locations that ensure safe and stable operation

**The Ohio State University: Structures and Systems Lab**

May 20XX - May 20XX

Research Assistant, Professor R. Standard

- Developed analytical model for a fuel injector and simulated the system in Simulink
- Designed and constructed control systems lab exercises involving PID and PPF control
- Programmed systems in C; derived design equations for actuators that included entities such as deflection and block force
- Validated design metric using an MTS hydraulic force/displacement system

### ENGINEERING EXPERIENCE

**Big Engine Company**

May – August 20XX

Graduate Intern

- Programmed MATLAB Graphic User Interface software for analysis and design of hydraulic bushings; saving approximately 12% in annual labor costs
- Designed and fabricated prototype device capable of various configurations; conducted steady state and transient experiments to examine dynamic properties
- Utilized vehicle system models to investigate effects of hydraulic bushings on automotive suspension vibrations, such as shimmy and brake judder

**Propeller Simulations in CFD**, Sponsored by Ohio Engineering Corporation

January – May 20XX

- Led a multidisciplinary engineering group to determine the feasibility of numerical simulations of surface-piercing propellers
- Determined CFD models for complete simulation of interaction between rotating propeller and water-free surface; company currently investing in implementation of project findings

### LEADERSHIP AND PROFESSIONAL INVOLVEMENT

National Conference Chair, Future of Mechanical Engineers

January 20XX – Present

- Coordinate logistics for conference with 20 professional industry speakers, hosting 300+ attendees

Member, American Society of Mechanical Engineers

October 20XX – Present

Graduate Teaching Associate, OSU Department of Mechanical Engineering

June 20XX – May 20XX

- Instructed two courses: Engineering Introductory Course and Design for Manufacturing and Assembly, covering computer aided design software such as SOLIDWORKS

- Assessed performance of 50+ students; held weekly office hours to provide additional support

Elected Delegate, Council of Graduate Students

May 20XX – August 20XX

### SELECTED PUBLICATIONS AND PRESENTATIONS

**B. Buckeye**, S. Grey, and A. Name. "New Standard Performance and Safety Metrics". Under review.

**B. Buckeye** and S. Grey. "Internal Fluid Dynamics and Frequency Characteristics of Feedback-Free Fluidic Oscillators" Engineering Publication Company, 2(22), 6-10 (20XX).

A. Person, **B. Buckeye**, and C. Person. *Linear and Nonlinear Analytical Models of Hydraulic Bushings*. Future of Mechanical Engineers Conference. Newark, NJ. 2/13-2/18/XX

A. Person, C. Person, and **B. Buckeye**. *Effects of Hydraulic Bushings on Automotive Suspension Vibrations*. Mechanical Engineering Conference. Austin, TX. 9/28-10/3/XX



# HOW YOU SHOULD FORMAT A RESUME?

# Resumes

- Chronological resume- emphasizes job titles and dates (most traditional format)
  - Reverse chronology (most recent/current job first)
- Skills resume- built around what you did, not when you did it.
- Categories:
  - Contact Information
  - Career objective- Optional
    - Customize it to the job/company you are applying.
  - Summary of qualifications
    - Bulleted list of 3-7 items
  - Education
    - Degree, major, month and year received, university, city, state. Optional: GPA
  - Experience
  - Honors
  - Activities
  - References

[https://cstw.osu.edu/sites/default/files/2020-08/resume\\_0.pdf](https://cstw.osu.edu/sites/default/files/2020-08/resume_0.pdf)



# WHAT IS THE JOB SEARCH TIMELINE?



# PhD Job Search Timeline

- Years 1-4:
  - Register with ECS
  - Explore fellowship/grant opportunities (1-2 year)
  - Identify areas of research and complete coursework
  - Give presentations and expand teaching experience or supervisory skills.
  - Help on committees and continue apply for grants
  - Submit articles for publication
  - Create a CV and update as needed
  - Discuss application, search process, and expectations of candidates in your field of specialization with your advisor.
  - Make a plan for your last year as the job search process, dissertation, and other obligations will require a great deal of balance.

# PhD Job Search Timeline Cont.

- Year 5 (or last year of PhD Program):
  - Update CV and other job search documents and have them proofed by ECS advisor and others
  - Create a dossier online and set up delivery arrangements for your letters of recommendation to be submitted
  - Contact faculty, advisors, and others from whom you are requesting recommendation letters. Best to reach out to your letter writers the summer before your last year.
  - Gather application materials including your professional materials as well as course syllabi, teaching evaluations, submitted and published articles, conference abstracts, and transcripts.
  - Send applications in the fall using network and online job search resources
  - Prepare for interviews using your advisor and ECS.
  - Inform your advisor and reach out to ECS for help
  - Consider parallel plans and alternatives to an academic career if your search is not progressing



# HELPFUL RESOURCES

# Job Search Resources

The Ohio State University Resources		Specialized Resources	
<a href="#">Handshake</a>	Handshake is a “one-stop shop” for finding jobs, researching employers, keeping tabs on ECS events, and accessing documents helpful to your job search. It also provides links to external job search and career planning websites.	<a href="#">ACS</a>	An online career and employment site exclusively for the chemical sciences community, hosted by the American Chemical Society.
<a href="#">Jobs at Ohio State and Ohio State Medical Center</a>	View and apply for OSU and OSU Medical Center job opportunities. In addition to full time jobs, student positions are also available.	<a href="#">AIChE</a>	The “careers” area of the American Institute of Chemical Engineers has search job boards. Resumes can be uploaded to the site.
<a href="#">Ohio State Undergraduate Research Office</a>	On-campus research opportunities—student can learn how to get involved with research as an undergraduate.	<a href="#">ASME</a>	The careers section of the American Society of Mechanical Engineers to find jobs in industry and research. ASME also has a salary tool.
<a href="#">Ohio State Student Employment</a>	A list of jobs both on- and off-campus for current OSU students.	<a href="#">IEEE</a>	IEEE (Institute of Electrical and Electronics Engineers) hosts a job board for technology professionals at any stage of their career, whether getting started, advanced, or transitioning. Resumes can be uploaded to the site.
Ohio Specific Resources		<a href="#">Jobipedia</a>	Community of HR professionals that offer advice to entry level job seekers. All the advice and answers provided on the site are from an expert who meets and interviews prospective hires on a regular basis.
<a href="#">ColumbusInternships.com</a>	Connects Columbus-area college students with Columbus employers. Hosted by the Columbus Chamber of Commerce.	<a href="#">New Scientist Jobs</a>	Searchable database with Science and Technology jobs including international jobs. Job alerts can be created.
<a href="#">OhioMeansJobs.com</a>	Search State of Ohio's website for current job openings in Ohio and post your resume.	<a href="#">NPSE Job Board</a>	Career center hosted by National Society of Professional Engineers.
		<a href="#">Power Engineering Careers</a>	For students interested in the electric power industry. Create an account to search for internships and career opportunities, research businesses and to post a profile and resume. Sponsored by the IEEE Power & Energy Society.
		<a href="#">Science Careers</a>	Provides career resources for life, physical, and health sciences in industry, academia, and government.

# Job Search Resources Cont.

Geographical Resources		Company Resource Links	
<a href="#">AfterCollege</a>	Connects job-seeking college students and alumni with employers who want to hire candidates through faculty and career networks at colleges and universities. Uses a patented matching process to deliver jobs to job seekers, basing matches in part on a user's academic affiliation and field of study. Sign up required to see job information.	<a href="#">CNN Cost of Living</a>	Tool compares salaries from one city to another city.
<a href="#">CareerOneStop</a>	CareerOneStop is a series of online job search resources that includes job postings. The site is sponsored by the U. S. Department of Labor. Provides career, training, and job search resources.	<a href="#">Fortune Magazine</a>	Lists of companies (and company profiles): Fortune 500, Global 500, Best to Work For, 100 Fastest Growing, etc.
<a href="#">Dice</a>	Job board for technology, energy, and healthcare industries. Account can be created for job alerts.	<a href="#">Glassdoor</a>	Glassdoor is a career and workplace community giving an inside look via employee reviews.
<a href="#">EngineerJobs.com</a>	Job listings by major, experience level, and state.	<a href="#">GoinGlobal</a>	GoinGlobal provides information about getting hired and working in individual countries. GoinGlobal also helps international students identify US employers that have provided sponsorship previously. Access GoinGlobal through Handshake under "Career Center" > "Resource Library."
<a href="#">indeed</a>	A job listings aggregate site with key word search functionalities and geographic search feature.	<a href="#">Inc.</a>	Entrepreneurial magazine that includes the "Inc 500" (fastest growing private companies in America).
<a href="#">LinkedIn</a>	The student job portal can be filtered by entry level career and intern or co-op positions.	<a href="#">MarketWatch</a>	Information for stock market quotes, business news, and financial news subsidized by Down Jones & Company, Inc.
<a href="#">Simply Hired</a>	Job listings aggregate site that allows functional and geographic search options.	<a href="#">NerdWallet</a>	Compare cost of living between two geographical locations. Costs are broken down by housing, transportation, food and entertainment. Core cost of living data is from ACCRA Cost of Living Index from the Council for Community and Economic Research.
<a href="#">US.jobs</a>	An employment search engine that takes you directly to employers' job postings. Includes geographic search options. Site is provided by the National Labor Exchange in alliance with the National Association of State Workforce Agencies (NASWA).	<a href="#">Wall Street Journal</a>	Stock market quotes, business and financial news.
		<a href="#">Uniworld</a>	Directory of American companies operating overseas and directory of foreign companies in the U.S.

# Virtual Networking Tips



# Interviewing Tips



# Resume Tips





# Resource Links

- [ECS: Graduate Student Resume Templates \(in Handshake\)](#)
- [CSTW: Career Preparation Resources](#) (includes CV template)
- [ECS: Resumes Youtube Playlist](#)
- [ECS: PhD Job Search Guide \(in Handshake\)](#)
- [ECS: Job Search Resources \(in Handshake\)](#)
- Since job search is an all-encompassing term that also includes interviewing and networking. ECS's [interviewing playlist](#) and [virtual networking playlist](#)