

# First Impact - Making the Right First Impression with a Resume or CV

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**What I can Offer:** What follows are a collection of ideas, tips, considerations. Some might be suitable for you and the position you seek. Some will not be. The resume/CV is a reflection of you, as such it is full of personal decisions of how you want to represent yourself. You must represent yourself honestly, but there can still be a lot of flexibility.... Like the choice of clothes you wear.

**Purpose of the Resume or Curriculum Vitae (CV):** Generate enough interest to warrant further consideration, usually a phone / skype interview or live interview. *(Knowing someone in the company is usually more effective!)*

**Hiring Process:** The incoming resumes/CVs will usually be directed to an individual in HR or the chair of a hiring committee who will screen out the submissions that they deem not suitable. Then the remaining pool of resumes will be reviewed by a larger committee including the hiring manager. They often meet and vote for candidates, and this usually determines the order of priority for the next step (phone interview, calls to references, etc.) .

# The Resume Review Process--- Messy Business



**How Does One Create a Resume that Will Stand Out?**

- **Tracking:** Keep a record of the resumes you have created. Save them all (with the date in the filename, for example). Keep a record of which resume was submitted for which job opening and the date, and any other notes.
- **Lingo and Abbreviations:** Spell out any terminology unless it is very basic, or is actually introduced in the job description. The abbreviation can be added redundantly in parenthesis.
- **File Format:** If submitting electronically, always use PDF format as opposed to a word document. The PDF conveys finality. Be sure that the page size is appropriate for printing in that region: 8.5" x 11" for North America, otherwise A4 size.
- **Hyperlinks:** Including links can sometimes be helpful for information that needs to be kept perpetually updated (list of publications, email contact information). But you will be responsible for maintaining this information. Consider that the printed copy needs to still be fully functional. QR codes are possible, and "short URL" can be attained.
- **Confidential:** Consider marking the resume "confidential" to let the recipient know that it is not common knowledge that you are seeking alternative employment. Also consider a footer, "Provided to Joe Smith on 14May2019. Do not redistribute."

- **Size and Scope:** One and two page versions are preferred – especially for a resume. Consider pruning down from a larger “master version” or “omnibus version”. A pruned version contains just the content that is suitable for a particular job hunt. If still important, auxiliary files can be provided, “References available upon request”, “A listing of 24 journal publications is available upon request”.
- **Peer Review:** Have a friend review your resume, preferably someone with experience in hiring. They might have ideas that you want to adopt, but not necessarily.
- **References:** Talk with each reference before providing their names. See how they feel about serving as a reference. Are they wildly enthusiastic? Or do they scarcely have time to talk to you. Let them know if this job-search is confidential or not.
- **Reverse Order:** Don’t apply to your dream job first! Start with less favored job opportunities first, because you are likely to gain experience and get more refined after each resume and interview.
- **Impossible Job Descriptions:** Don’t be intimidated by a job description that is looking for everything. They probably didn’t get approval to hire the two persons they wanted, so they are casting a wide net in a fishing expedition.

## Essential Content:

- Name and Contact Information:
  - phone number, permanent email address (ORCID is increasingly used).
  - Avoid novelty emails like “superdude2108@gmail.com”.
  - Usually avoid your current employers email address.
- Employment History:
  - Provide range of years, position or title, and company name and location.
  - Go back only as far back as relevant, or as space allows.
  - Highlight significant responsibilities, e.g. “Responsible for development of new architecture for scan generator in \$1.5M product”, “Oversaw funding renewal application for \$200,000 program”.
- Education:
  - List major field of study for undergrad degrees with GPA and any honors,
  - For advanced degrees, give major and thesis title.
- Skills:
  - Be complete! Provide both technical and soft skills.
  - Don’t rely on abbreviations, but do include them since they are often search terms.
  - Some examples: High voltage design, solving boundary value problems, programming in C, python, postscript, Fortran, Microsoft Excel with high proficiency, ultra high vacuum (UHV), gas injection systems (GIS), focused ion beams (FIB), building group consensus, organized customer workshop, training for technical sales personnel, created video based release notes for new software versions.
  - Read through recent reviews from students, or management.

## Other Possible Content:

- Certifications and Professional Training:
  - e.g. ISO certification, Laser Safety Training, Chemical Safety Training, Seminar on graphical presentation of data.
- Publications:
  - Choose a format for this (e.g. APA, Chicago), but include title, include all authors, underline self. Be consistent in format.
  - If more than 3, give the best 3, and an additional note: “a full listing of 20 publications is available upon request”
- Patents:
  - If listed, be sure you can say something about them (granted, submitted, published)
- Conference Presentations:
  - If more than 3, give the most important 3, and the addendum “a full listing of 12 conference presentations is available upon request”
- Recognitions and Awards:
  - e.g. Best student paper award - APS Plasma Conference 2012
  - e.g. Received university grant for international travel
- Professional Participation:
  - e.g. APS member since 2015, journal referee, contributor to the “IEEE podcast on SQL”, Session chair at 2017 SIMS USA Conference.
- Languages:
  - e.g. basic German, fluent French, business Japanese.
- Career Interests, Objectives:
  - Avoid.... or use only if posting online or to a broad unknown audience.

## **Avoid:**

- Ethnicity, gender, religion, marital status, work eligibility, age, photo, hobbies, salary required.

**Format:** Format is important because it makes information easy to find. If you organize with clear headings, and use indents and bullets, and use them consistently it should serve as a quick guide to the reviewers eye. Don't mix more than 2 font sizes. Dividing lines are helpful. Recent trends include: Multi column format, increased use of color, the usage of icons.

# A typical resume of 2 pages:

St, Newburyport, MA 01950

978-@gmail.com

## Work Experience

- 12/2009 – 11/2015 **Karlsruhe Institute of Technology, Karlsruhe, Germany**  
Scientist: Conducted *in-situ* experiments (mechanical deformation and heating) in combination with crystal orientation mapping inside the transmission electron microscope (TEM); Developed novel evaluation routines and data filters (MATLAB) that enabled new insights into the deformation behavior of nanocrystalline metals.  
Led research projects; Supervised students.  
Prepared TEM samples with multiple techniques including a focused ion beam microscope (FIB); Mechanical testing; Magnetron sputtered nanocrystalline samples.
- 09/1999 – 08/2001 **Bruker Optik GmbH, Ettlingen, Germany**  
Application specialist: Provided a customer advisory service in Near-Infrared Spectroscopy (NIR); Proof tested the company software; Conducted feasibility studies in NIR for customers; Held software courses for NIR specific software in German as well as in English; Scripting for NIR-spectrometers (VisualBasic).

## Internships

- 06/2008 – 08/2008 **Heriot-Watt University, Edinburgh, Scotland**  
Scientist: Investigated a 3D broadband imaging method; Image analysis and ray tracing with MATLAB.
- 08/2006 – 10/2006  
08/2004 – 08/2004  
07/2003 – 08/2003 **L'Oréal GmbH & Co. KG, Karlsruhe, Germany**  
Chemical technical assistant: Product control in the wet chemistry and microbiological laboratory; Activated an analytical apparatus and trained colleagues in its use.

## Education

- 02/2010 – 12/2014 **Ph.D in Material Science (Dr.-Ing.)**  
Technische Universität Darmstadt, Darmstadt, Germany  
Ph.D thesis: „Investigation of the deformation mechanisms in nanocrystalline metals and alloys using transmission electron microscopy”
- 10/2003 – 10/2009 **Diplom-Physiker (Master of Physics)**  
Karlsruhe Institute of Technology, Karlsruhe, Germany  
Diploma thesis: “The Salvinia-Effect – Investigations of air retaining plants and bionic surfaces”  
Developed optical methods, a pressure cell for optical microscopes and bionic air retaining surfaces.

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- 10/2007 – 07/2008 **Master of Physics in Optoelectronics and Lasers**  
Heriot-Watt University, Edinburgh, Scotland,  
Master's thesis: “Fluorescence microscopy and broadband 3D imaging for commercial microscopes”  
Mounted a broadband 3D imaging set-up on a portable optical workbench and attached it to a commercial microscope; Investigated a new excitation method for fluorescence microscopy.
- 09/2001 – 06/2003 **University-Entrance Diploma**  
Carl-Engler-School, Karlsruhe, Germany
- 09/1997 – 07/1999 **Chemical-Technical Assistant (CTA)**  
Carl-Engler-School, Karlsruhe, Germany

## Volunteer Work

- 07/2002 – 07/2015 **German alpine club (DAV), Germany**  
Youth leader: Organized and led trips in the Alps; Taught many aspects of mountaineering in weekly meetings;
- 10/2007 – 06/2008 **Heriot-Watt University Mountaineering Club (HWUMC), Scotland**  
Committee member and gear manager: Organized events; Managed gear; Held climbing courses.
- 10/2005 – 02/2006 **“Children's Villages Father Alfred J. Spiessberger”, Bolivia**  
Teacher: Worked with children and youth; Taught English, German and the drums; Produced wooden toys.

## Others

- Languages** German (first language), English (fluent), Spanish (good)
- Computation** MATLAB, C/C++, Visual Basic, LaTeX, MS Office, Photoshop, Illustrator, SketchUp, TYPO3
- Methods** Electron microscopy (TEM, FIB, SEM), TEM sample preparation (electrochemical, ion milling, dimpling, polishing), confocal microscopy, NIR spectroscopy, fluorescence microscopy, profilometry, Mechanical testing (tensile test and nanoindentation), Magnetron sputtering, AFM, optical and chemical lab operation
- Awards** 2015 DGE (German Microscopy Association) Dissertation award for innovative method development  
2014 Best student talk (Hysitron workshop, Saarbrücken)
- Publications** 21 (8 as first author)
- Conference talks** 13 (2 invited industry seminars)
- Journal review** Scientific Reports



# A typical CV can be more complete:

**HIGHLIGHTS**

- 7+ years of teaching experience
- Strong research background
- Self-motivated and hardworking
- Excellent communication skills
- 25+ publications

**EDUCATION**

- Ph.D., Northeastern University
- B.S. Chemistry, East China Normal University

**TECHNICAL SKILLS**

- Thin film deposition
- Optical microscopy
- Bulk material synthesis
- Materials characterization (TEM, AFM, XRD, GAD, etc.)
- Characterization of nanostructures
- Specialized spectroscopy
- Computer programming

**HONORS & AWARDS**

- The Outstanding Young Scientist Award
- The Excellent Graduate Student Award
- Research Achievement Award

- The Outstanding Young Scientist Award*
- "SL/GF-3 5W-30"* Shanghai in 2002

**RESEARCH AND PUBLICATIONS**

- Massachusetts Institute of Technology, Post-Doctoral Associate
- Study the evolution of cathode/electrolyte interface
  - Engineered (La,Sr) pulsed laser deposited thin films (i.e., high temperature) and the oxygen adsorption
  - Optimized (La,Sr) silicium carbide
  - Identified the growth mechanism of electrolytic cell
  - Developed CeO<sub>2</sub> production environment

- Northeastern University, Research Assistant, I
- Focused on integrating BTO, and BST) and molecular beam epitaxy
  - Assembled and measured thin films and characterization
  - Developed an efficient characterization method
  - Demonstrated a novel laminate multiferroic
  - Developed ferrite tunneling junctions
  - Developed ferrite semiconductor structures

- Sinopec Shanghai Laboratory, Project Manager, Researcher
- Managed the laboratory
  - Researched the synthesis
  - Investigated the mechanism
  - Optimized the formulation
  - Enacted standardization

- Sinopec Gaoqiao Petrochemical Engineering, Chemical Engineer
- Synthesized the novel materials
  - Investigated the synthesis mechanism
  - Operated special technologies

**TEACHING EXPERIENCE**

- Teaching Assistant, Department of Fundamentals, Unit C
- Training Provider, Undergraduate

**PUBLICATIONS**

- Z. Cai, T. L. Goodrich, J. M. M. M. M., *La<sub>0.6</sub>Sr<sub>0.4</sub>SiC*
- Z. Cai, T. L. Goodrich, J. M. M. M. M., *Tempe*
- V. K. I., "Dyna", 107, 03
- Y. Kim, Multilayered
- H. Jali, *Chemical Letters*
- V. K. I., of bari
- Z. Cai, layer in
- G. Udd, of Nan
- Journals
- Z. Cai, wide t
- Physic
- K. K. I., on ferr
- Yajie C, "Large
- Applie
- Ming L, Lew, Y, Magne
- Materials*, 19, 1, 2009

- Ming Liu, Oghen "Strong magneto temperature spin-
- A. Posadas, F. J., an alternative ga 233511, 2008
- M. Liu, O. Obi, deposited multife *Physics Letters*, 9
- Z. Chen, Z. Cai, aging upon the *Applied Physics*,
- T. L. Goodrich, epitaxy through silicon carbide" *J*
- T. L. Goodrich, 6H-SiC(0001) by *Surface Science*,
- J. Lou, R. E. Insi and Microwave F
- Z. Cai, T. L. Goh, M. E. Mc MgO(111)//SiC (182505, 2007
- Z. Cai, Z. Che characterization of interwoven layers
- P. R. Ohodnicki, Morkoc, N. Biyil BaO(Fe<sub>2</sub>O<sub>3</sub>)<sub>5</sub> thin 09M521/1-09M5
- Ming Liu, Xin Li and Nian X Sun, nanowires", *Appl*
- T. L. Goodrich, hexagonal 6H-Si *Vacuum Science Measurement*, an
- T. L. Goodrich, J
- Z. Chen, Aria Yar "Structure and m *on Magnetics*, 42

**PROFESSIONAL PRESENTATIONS**

- Materials Research Society Conference*, Boston, MA, December 2011, Electronic Structure and Oxygen Reduction Activity at the Heterointerfaces of (La,Sr)CoO<sub>3</sub>/(La,Sr)<sub>2</sub>CoO<sub>4</sub> Multilayers [presentation]
- 18th International Conference on Solid State Ionics*, Warszawa, Poland, July 2011, Strain Effects on Surface Chemistry and Electronic Structure of Epitaxial La<sub>0.6</sub>Sr<sub>0.4</sub>CoO<sub>3</sub> Films [invited presentation]
- 18th International Conference on Solid State Ionics*, Warszawa, Poland, July 2011, Effect of Temperature on the Surface Cation Chemistry of La<sub>0.6</sub>Sr<sub>0.4</sub>CoO<sub>3</sub> Thin Films - Correlations to Cathode Performance [poster]
- Frontiers of Renewable Energy Science and Technologies*, Boston, MA, September 2010, High Temperature Chemical, Electric and Nanostructure Dynamics on Perovskite Thin-Film Surfaces [poster]
- North American Molecular Beam Epitaxy Conference*, Princeton, NJ, August 2009, Integration of Barium hexaferrite on wide bandgap semiconductor 6H-SiC by molecular beam epitaxy [poster]
- The Materials Links Intercollegiate Symposium on Interdisciplinary Graduate Research*, Boston, MA, February 2009, Integration of Barium hexaferrite on wide bandgap semiconductor 6H-SiC by molecular beam epitaxy [presentation]
- Materials Research Society Conference*, Boston, MA, December 2008, Impact of Magnesium Oxide Interlayer on Heteroepitaxial Growth of Barium Ferrite on Wide Bandgap Semiconductor 6H-SiC [poster]
- American Vacuum Society Meeting*, Boston, MA, October 2008, Molecular beam epitaxy integration of Barium hexaferrite on wide bandgap semiconductor 6H-SiC [presentation]
- Research and Scholarship Exposition*, Northeastern University, Boston, MA, March 2008, Molecular Beam Epitaxy Integration of Barium Hexaferrite on Wide Bandgap 6H-SiC [poster]
- Materials Research Society Conference*, Boston, MA, November 2007, Impact of Magnesium Oxide Interlayer on Heteroepitaxial Growth of Barium Ferrite on Wide Bandgap Semiconductor 6H-SiC [poster]
- North American Molecular Beam Epitaxy Conference*, Albuquerque, NM, September 2007, Understanding the role of the magnesium oxide interlayer on heteroepitaxial growth of barium hexaferrite on 6H-SiC [presentation]
- American Vacuum Society Meeting*, San Francisco, CA, November 2006, The integration of barium ferrite on 6H-SiC by molecular beam epitaxy [poster]

**PROFESSIONAL SOCIETY MEMBERSHIP**

- The Electrochemical Society (ECS)
- American Institute of Chemical Engineers (AIChE)
- American Vacuum Society (AVS)
- Materials Research Society (MRS)

Some recent trends in resume's are quite flashy, but less information rich. For high level technology, jobs these probably should be avoided.



Contemporary resume



Organic shapes cover le...



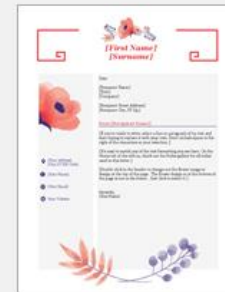
Rose suite cover letter



Bold monogram resume



Green cube cover letter



Pink floral cover letter



Contemporary photo re...



Bold monogram cover l...



Green cube resume



Organic shapes resume



Headshot resume



Sticky note cover letter



Sticky note resume



Contemporary photo c...



Modern initials resume



Entry-level resume refer...



Resume references



Resume (Professional)