

## On Education

“In retrospect, I think the best thing I did in the way of education was to get my B.S./Ph.D. in geological engineering (UMR), which put me on a dual P.G./P.E. track. Not everyone will do this, but having at least some ability to bridge the gap between the worlds of geology and engineering is a real asset.”

– **William Nieman, SYPSC Member**

### **Recommended geology courses for students interested in engineering geology careers:**

- ◆ Hydrogeology
- ◆ Engineering Geology
- ◆ Good background in physics and calculus

### **Recommended courses for students interested in environmental geology careers:**

- ◆ Hydrogeology
- ◆ Environmental Geology
- ◆ Geomorphology

### **Other recommended courses:**

- ◆ Statics
- ◆ Fluid Mechanics
- ◆ Materials
- ◆ Soil Mechanics
- ◆ Rock Mechanics

### **Other recommended courses:**

- ◆ Organic chemistry
- ◆ Low temperature geochemistry (especially useful for those people dealing with contaminants in soil and groundwater)

“The following thoughts are those of a senior environmental/engineering geologist who came into the profession through the classical geology route. It is very important that those new engineering geologists entering the profession have an appreciation of the inter-relationships between the various aspects of geology and engineering and that we must be able to characterize the site in terms of what geologic data is pertinent to design and how it will potentially affect design and performance.”

– **John Moylan, SYPSC Member**

### **Recommended Geology Courses: (solid grounding in the basics of geology)**

- ◆ Structural Geology
- ◆ Stratigraphy
- ◆ Sedimentology
- ◆ Geomorphology
- ◆ Geophysics basics
- ◆ Hydrogeology

### **Desirable Courses**

- ◆ Statics
- ◆ Fluid mechanics
- ◆ Soil Mechanics
- ◆ Rock Mechanics
- ◆ Organic chemistry
- ◆ Low temperature geochemistry
- ◆ Contaminant transport
- ◆ GIS
- ◆ Remote sensing

### **Strongly Recommended Non-Geology Skills: (we are worth no more to our employer than our ability to communicate what we know)**

- ◆ English grammar and composition
- ◆ Oral communication skills



# \$SCHOLARSHIPS\$

## **Marliave Scholarship Fund**

**Details:** A Marliave Scholar applicant must be a senior or graduate student presently enrolled full-time in a college or university degree program that is directly applicable to engineering geology or geological engineering, and a student member of AEG.

**Deadline:** April 15

**Award:** \$2,000

## **Martin L. Stout Scholarship**

**Details:** Applicant must be a student member of AEG at time of award. Applications for student membership may be submitted with the scholarship application.

**Deadline:** February 1

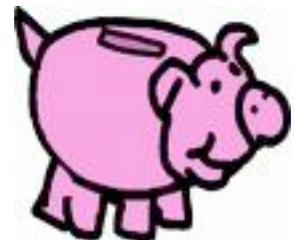
**Award:** \$1,000 Undergraduate  
\$1,500 Masters  
\$2,000 Doctoral

## **Norman R. Tilford Field Studies Scholarship**

**Details:** Applicants must be a Student member of AEG. Two to three awards are given -- one for undergraduate students and two for graduate students.

**Deadline:** February 1

**Award:** \$1,000 Undergraduate  
\$1,500 Masters  
\$2,000 Doctoral



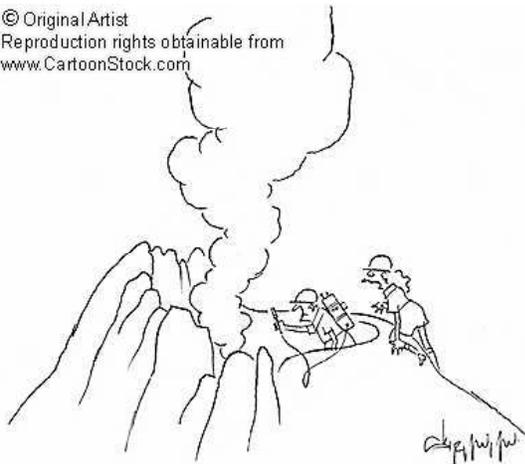
## **Lemke Scholarship Fund**

**Details:** Applicants must be Student members of AEG who are sole or first authors of a paper to be presented at an AEG Annual Meeting, or at a meeting or conference sponsored, co-sponsored, or supported by AEG. Application deadlines vary according to the meeting calendar. Grant amounts vary according to meeting and available funding.

**Deadline:** Generally, in July for the AEG Annual Meeting (typically held in September), or 90 days before the first day of another meeting or conference.

**Award:** Amount varies. Typical minimum \$200

More information at: [aegfoundation.org](http://aegfoundation.org)



"But when I said I'd follow you wherever your career took you, I didn't know what a volcanologist was."

## AEG Student Career Center

Looking for your first job? A new job? Or just want to **post your resume**? The AEG Career Center can help you find the opportunity that's right for you! New job opportunities are added all the time, in the field of geology, engineering and more! Take a look at [aegweb.org](http://aegweb.org), select "Students", then "Student Career Center"

## Top 10 Resume Writing Tips

### 1. Know the purpose of your resume

Some people write a resume as if the purpose of the document was to land a job. As a result they end up with a really long and boring piece that makes them look like desperate job hunters. The objective of your resume is to land an interview, and the interview will land you the job (hopefully!).

### 2. Back up your qualities and strengths

Instead of creating a long (and boring) list with all your qualities (e.g., disciplined, creative, problem solver) try to connect them with real life and work experiences. In other words, you need to back these qualities and strengths up, else it will appear that you are just trying to inflate things.

### 3. Use effective titles

Like it or not, employers will usually make a judgment about your resume in 5 seconds. Under this time frame the most important aspect will be the titles that you listed on the resume, so make sure they grab the attention. Try to be as descriptive as possible, giving the employer a good idea about the nature of your past work experiences. For example:

### 4. Proofread it twice

It would be difficult to emphasize the importance of proofreading your resume. One small typo and your chances of getting hired could slip. Proofreading it once is not enough, so do it twice, three times or as many as necessary. If you don't know how to proofread effectively, here are 8 tips that you can use.

### 5. Use bullet points

No employer will have the time (or patience) to read long paragraphs of text. Make sure, therefore, to use bullet points and short sentences to describe your experiences, educational background and professional objectives.

### 6. Put the most important information first

This point is valid both to the overall order of your resume, as well as to the individual sections. Most of the times your previous work experience will be the most important part of the resume, so put it at the top. When describing your experiences or skills, list the most important ones first.

### 7. Do not include "no kidding" information

There are many people that like to include statements like "Available for interview" or "References available upon request." If you are sending a resume to a company, it should be a given that you are available for an interview and that you will provide references if requested. Just avoid items that will make the employer think "no kidding!"

### 8. Explain the benefits of your skills

Merely stating that you can do something will not catch the attention of the employer. If you manage to explain how it will benefit his company, and to connect it to tangible results, then you will greatly improve your chances.

### 9. Avoid negativity

Do not include information that might sound negative in the eyes of the employer. This is valid both to your resume and to interviews. You don't need to include, for instance, things that you hated about your last company.

### 10. One resume for each employer

One of the most common mistakes that people make is to create a standard resume and send it to all the job openings that they can find. Sure it will save you time, but it will also greatly decrease the chances of landing an interview (so in reality it could even represent a waste of time). Tailor your resume for each employer. The same point applies to your cover letters.

# John Doe

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1234 Main St.  
Anywhere, US 12345  
(123) 456-7890  
[john.doe@internet.com](mailto:john.doe@internet.com)

## OBJECTIVE

Why are you submitting this resume?

## QUALIFICATIONS

- ◆ What types of skills separate you from everyone else? Are there organizational skills or interpersonal skills that you think the employer should know about?
- ◆ How would you describe your performance at previous jobs? Do you take direction well? How do you work independently or with a team?
- ◆ Do you have skill sets, such as computer skills that set you apart? What additional knowledge do you bring to this position?

**EDUCATION** (List all higher education institutions where you are currently enrolled or have received a degree or credits for a degree.)

UNIVERSITY OF SOMEWHERE, Anywhere, US  
Master's of Science, Geology, expected December 2010

OTHER STATE UNIVERSITY, Elsewhere, US  
Bachelor of Science, Earth Sciences, May 2006

AUCKLAND UNIVERSITY, Auckland, NZ  
Geological Sciences Study Abroad Program  
(May-Nov, 2004)

## RELATED WORK EXPERIENCE

ASSOCIATION OF ENVIRONMENTAL AND ENGINEERING GEOLOGISTS (AEG) **Student Intern** (Sept-Dec, 2004)  
Categorized member survey data to assist in implementing AEG's Strategic Plan.

## OTHER WORK EXPERIENCE

EDUCATIONAL RESOURCE CENTER: Other University **Tutor** (Jan, 2004-May, 2006)  
Aided students in understanding the course material and preparing for midterms and final exams for the course, Introduction to Earth Science: Dynamic Earth.

## STUDENT AND PROFESSIONAL ASSOCIATIONS

**Member,** Association of Environmental and Engineering Geologists (2002-2006)  
**Volunteer,** AEG Web Site Committee (2004-2005)

## HONORS and AWARDS

**Finalist,** National Scholarship for Hard Work Award (I wish ☺) (May, 2006)

## RELATED COURSEWORK

Geochemistry, Hydrology, Structural Geology, Mineralogy, Sedimentology, Physics I, Calculus I

**REFERENCES** (List three references with whom you are in good standing and have already been granted permission for a prospective employer to be contact.)

## Interview Tips:

**Tip 1: Plan Ahead** - Do a little homework! Research the company and the position if possible, as well as the people you will meet with at the interview.

**Interview Tip 2: Role Play** - Once you have finished studying, begin role playing (rehearsing). Try to keep your answers to the information your new employer will want to know.

**Interview Tip 3: Eye Contact** - Maintain eye contact with your interviewer. Show you want the job with your interest.

**Interview Tip 4: Be Positive** - In particular, avoid negative comments about past employers.

**Interview Tip 5: Adapt** - Listen and adapt. Be sensitive to the style of the interviewer. Pay attention to those details of dress, office furniture, and general décor, which will afford helpful clues to assist you in tailoring your presentation.

**Interview Tip 6: Relate** - Try to relate your answers to the interviewer and his or her company. Focus on achievements relevant to the position.

### More information at:

<http://www.careercc.com/interv3.shtml#Well>

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**"My short-term goal is to bluff my way through this job interview. My long-term goal is to invent a time machine so I can come back and change everything I've said so far."**

**The KEY is to give better answers than anyone else. To do this, you must:**

- (1) Anticipate likely questions;**
- (2) Develop excellent answers;**
- (3) Practice!**

### Questions to practice:

"Tell me a little about yourself."

"What do you feel has been your greatest work-related accomplishment?"

"What is your greatest strength?"

"What is your greatest weakness?"

"How do you handle stressful situations?"

"What is the toughest problem you've had to face, and how did you overcome it?"

"Have you ever had to discipline a problem employee? If so, how did you handle it?"

"Why do you want this position?"

"Why are you the best person for this job?"

Realize that sometimes what you say isn't as important as how you say it. **Be confident, enthusiastic, and remember to smile often.**

## YOU SHOULD ASK QUESTIONS:

Often the interviewer's last question is, "Do you have any questions for me?" Candidates who do not have questions show a lack of initiative and give the impression that they have minimal interest in the position. Stand out from those lazy job seekers by asking questions!

Have your questions ready in advance. Relate them to the company or its accomplishments/challenges (your research of the company will show and further impress the interviewer). Don't ask any question that shows that you have not done your research about the company.

Do not ask questions related to you, such as "When will I be eligible for my first raise?" or "How often will I be subjected to a performance review?" Don't bring up money. (You can do that after you are offered the job.)

More information at:

<http://www.best-interview-strategies.com/questions.html>

## Big Companies, Big Benefits

“I am very thankful that I choose to work for a larger company. When deciding where to apply for jobs, you need to be honest with yourself and determine where you would best fit in. I always made friends easily and knew that I would be comfortable working with different people.

Working for a large company has many benefits: diversity of work and an abundance of available projects, the flexibility to work in nearly any part of the country you want, the opportunity to work on projects across the nation and with people from different offices, excellent compensation, many opportunities to work your way up in the company, and often great benefits, such as the opportunity to enroll in a nationwide health care plan.

I started working for Gannett Fleming in January of 2007. While I was in the office, I worked on a variety of projects from Environmental Site Assessments to landslide stabilization with soil nails. That summer, I was given the opportunity to work on one of the most critical dams in the nation. While there, I met employees from at least 5 different offices throughout the country. It was interesting to find out what other projects they had worked on for their respective offices and the dynamics of their individual offices. The project is now finished, and I have decided to stay and work on a few more critical dams. Working for a large company was definitely the best fit for me!”

– Nichole Wendlandt

**Chair, AEG Allegany-Ohio Section  
SYPSC Member**



## Why I Like Working for a Small Company

“Working for a small company has numerous benefits. First, I know just about everybody on a first name basis. We do a lot of fun events like BBQs, picnics, chili-cook offs, etc, so it is nice to be able to talk to everyone there and not feel overwhelmed because with our size those events are manageable. Next, I don't ever have to worry about getting sent to another part of the country to support one of many branch offices. Our company covers the Midwest pretty well, but short duration trips to cover projects are much easier than extended month-long projects.

Next, the opportunity for professional growth and career advancement, in my opinion, are more plentiful. Our company has grown at a comfortable pace since I've been here, and many peers of mine have advanced to become project managers and division managers. In addition, we have all of our resources under one roof. What I mean by that is we don't have to wait for a paycheck or expense check to come from another city. Along the same lines, vacation requests and requests to attend AEG functions all get reviewed and approved quickly by somebody that sits right next to me, not someone several states away.

Also, working in a small company provides me with the opportunity to cross train in similar or completely different areas of expertise, thus, providing the employee with more diverse capabilities, more marketable skills, and overall, the chance to be of greater value to the company. Cross training could also include some non-technical aspects of running the business such as strategic planning, marketing, finances, and equipment resources – numerous important areas of expertise that could not be developed as quickly by a single individual in a large company atmosphere.”

– Duane Kreuger

**Vice-President, President-Elect of AEG**



“You're a little too small.”

## On Working for a Small Company...

- ◆ **Less Bureaucracy, More Freedom** – Simply put, less red tape means more time to focus on solving problems for your client and pursuing job tasks that you like to do.
- ◆ **Not Just Another Number** – Feel like you have special talents and skills? Are you a highly motivated individual? Well, you may become frustrated if you are working in a firm that thinks they have many other staffers just like you. Smaller firms need you more because there are fewer workers at the company to get things done. At a smaller firm you must wear “many hats”. This makes you more valuable and better builds your skill set in the long-run. If they need you more, management is more likely to listen to you more closely and attend to your goals and motivations.
- ◆ **Communication** – It is much easier to find the time and opportunity to talk to the top management or president of a small firm than a large firm. The benefits of this are self-evident.
- ◆ **Excitement and Involvement** – Employees at the smaller firms typically are able to gain a higher sense of being “engaged” in the exciting aspects of the job and the company as a whole. The employees of a smaller firm know what is going on for the most part more so than their peers at the larger firms. I like to think you work “with” and not “for” a small firm.
- ◆ **Business Acumen** – Do you enjoy the business side of things? Working with a smaller company will expose you more to how a business really runs. You will be better able to work alongside those persons who are responsible for office management, client development, cost control, employee benefits, taxes, and targeting future business / market trends.

By: Dave Duncklee

Dave has worked as an environmental consultant for over 25 years. In that time he has worked for three different companies, large and small. One with over 600 employees and 20 branch offices, a smaller company of 60+ employees, and, for the last 13 years, he has worked for a small startup company, his own, which has grown to 12 employees. Dave does point out that there are many positive aspects to working for a large company, but for the purposes of this section he has graciously compiled his thoughts on working for a small company.



# GRADUATING?



# CONGRATULATIONS!

As AEG's gift to you, you'll get your first year of Professional Level AEG Membership for **FREE!** That's a **\$75 value!!!**  
(Your student membership must be current upon graduating.)