



Sally Ezra

EZRA PENLAND ACTUARIAL RECRUITMENT

CASS – California Actuarial Student Summit

May 24, 2019

# Career Tips to Ensure Success

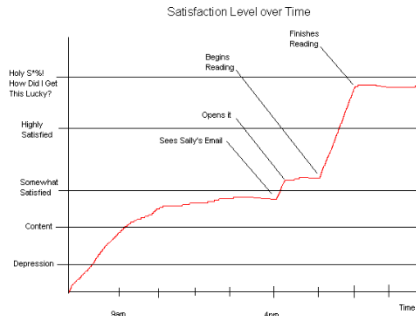
EXAMS | EDUCATION | EXPERIENCE | COMPUTER SKILLS  
NETWORKING | ORGANIZATIONS | RESUME | INTERVIEWING

A Special Thank You to

**CA ACTUARIAL STUDENT SUMMIT**



# ABOUT SALLY



This is why I love working with actuaries!



**EZRA PENLAND**  
ACTUARIAL RECRUITMENT



Sally Ezra and Claude Penland, ACAS, founded Ezra Penland with the goal of serving the Actuarial and related modeling fields at all levels. Ezra Penland has deep experience within the related predictive modeling and catastrophe risk modeling fields as well, and the firm is excited to be at the forefront of the insurance analytics field.

# POINTS OF DISCUSSION



- The Path to Starting Your Actuarial Career
  - Exams
  - Education
  - Experience
  - Computer Skills
  - Networking
  - Organizations
    - LinkedIn Groups
  - Resume
    - Email Signature
  - Interviewing
  - Online Resources

# EXAMS



- What are the different exams?

P/1 – Probability

FM/2 – Financial Mathematics

IFM/3F – Investment and Financial Markets

SOA

<https://www.soa.org/education/exam-req/edu-asa-req/>

CAS

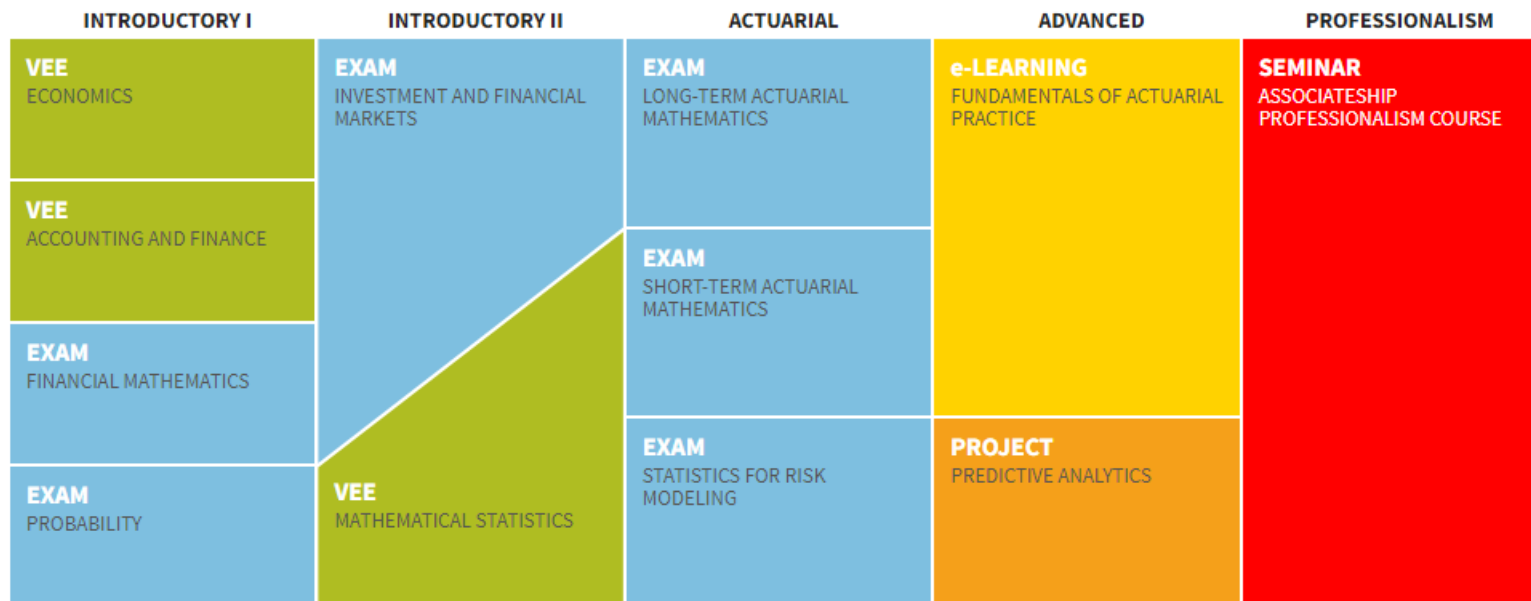
<https://www.casact.org/admissions/process/>

- What order do I need to take the exams?
- How many exams do I need before I can get a job?
- How many is too many?

# Associate of the SOA (ASA)



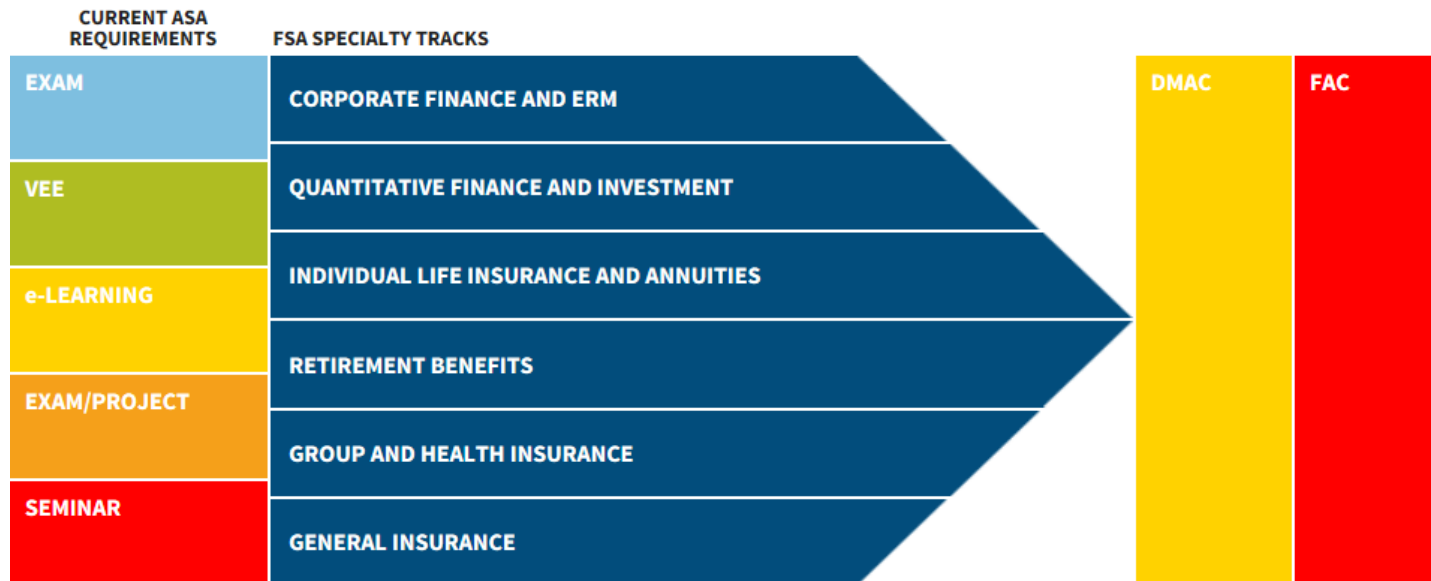
## ASA Pathway



# Fellow of the SOA (FSA)



## FSA Pathway



*An FSA is a fully qualified actuary with specialization in one area.*



# Six Specialty Tracks to FSA

- Corporate Finance and Enterprise Risk Management
- General Insurance
- Group and Health
- Individual Life and Annuities
- Retirement Benefits
- Quantitative Finance and Investment

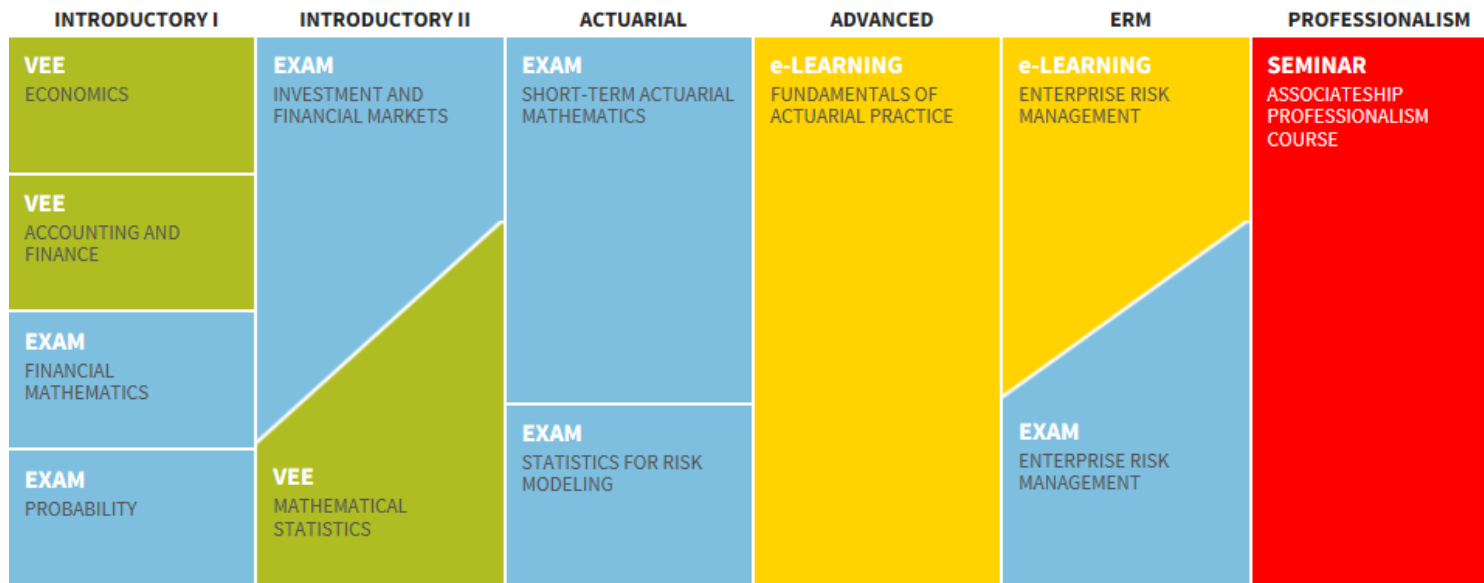




# Chartered Enterprise Risk Analyst (CERA)

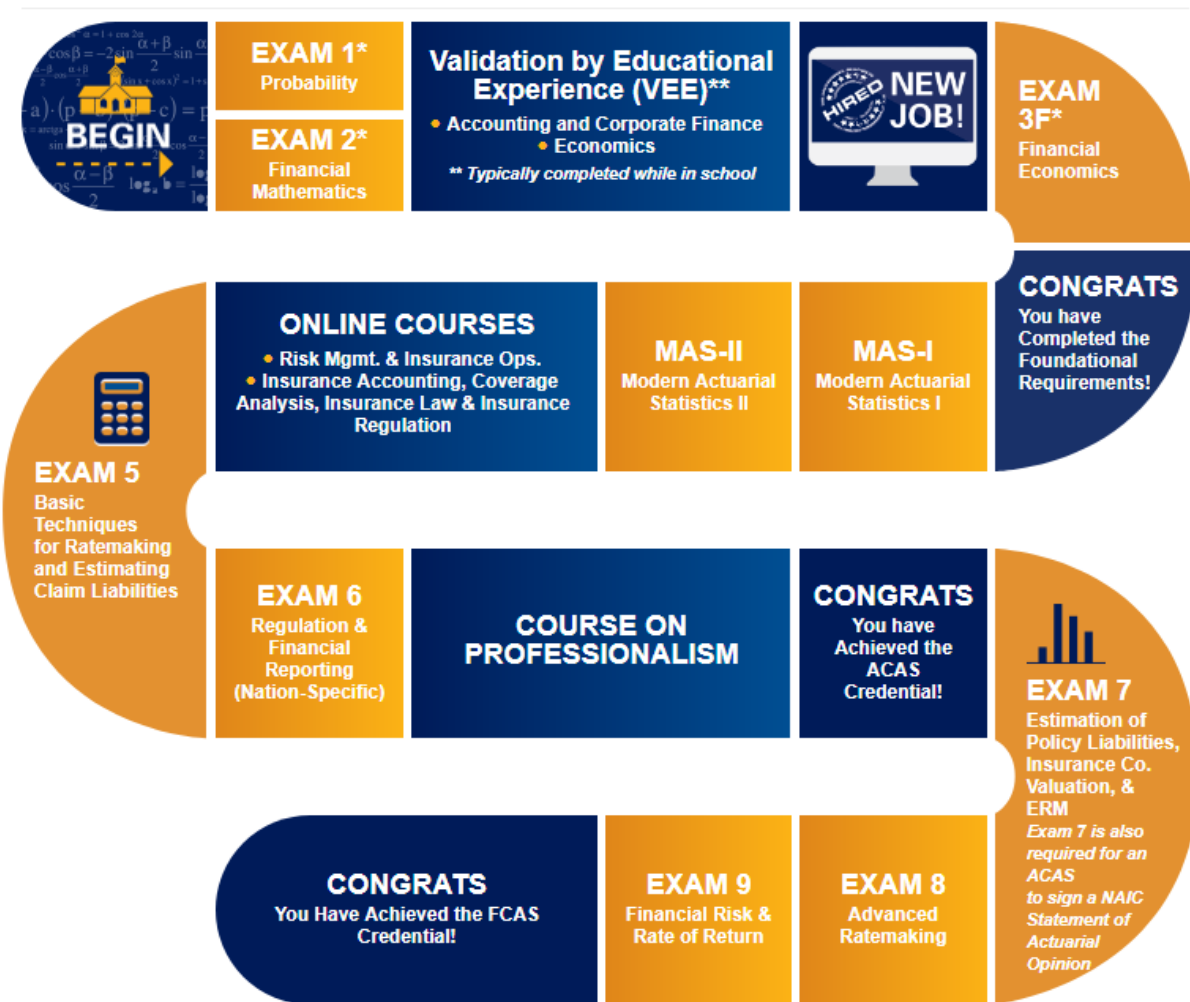


## CERA Pathway



- Equivalent to ASA in effort
- A special combination of exams and modules with an ERM focus

# CAS EXAM PATH



# THE CAS INSTITUTE



- Certified Specialist in Predictive Analytics (CSPA)
- Catastrophe Risk Management
  - Certified Specialist in Catastrophe Risk (CSCR)
    - Four exams
      - Property Insurance Fundamentals
      - Catastrophe Risk Insurance Fundamentals
      - Introduction to Catastrophe Modeling
      - Introduction to Catastrophe Risk Management
  - Certified Catastrophe Risk Management Professional (CCRMP)
    - The four exams listed above
    - Advance use of Models in Catastrophe Management
- <https://thecasinstitute.org/>

# EDUCATION



- Desirable candidates possess at least a bachelor's degree in a quantitative area of study:

Actuarial Science

Computer Science

Economics

Engineering

Finance

Management Information Systems (MIS)

Mathematics

Physics

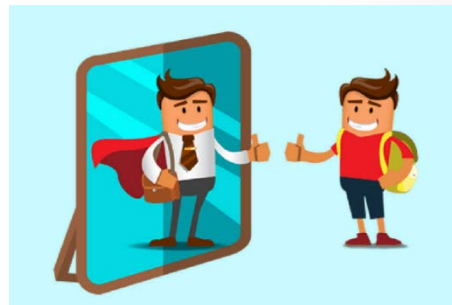
Statistics

Music

- Actuaries come from all walks of life



# EXPERIENCE



- Obtain at least one actuarial summer internship
- Ideally, you should strive for two internships
- Internships are a great opportunity to "try on" a discipline
  - Health
  - P&C
  - Life
  - Pension
- Internships are a great way to determine what kind of work environment you like
  - Consulting
  - Insurance Company
    - Larger or smaller company
  - View the differences between consulting and insurance here:  
<https://www.soa.org/future-actuaries/cand-conn-features/2015-insiders-insights-consulting-versus-insurance/>



# COMPUTER SKILLS



- Technology plays an important role in the actuarial profession

- Must-Have Computer Skill:



- Excel

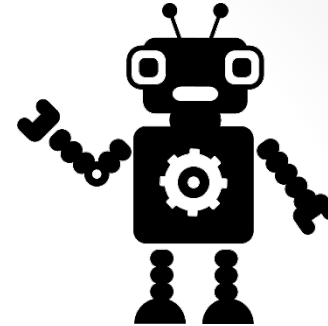
- Use of pivot tables daily, lookups, and complex formulas are crucial
- Know how to organize the field and summarize data
- Key functions: VLOOKUP, INDEX, MATCH, TEXT, IF, AND, OR, SUMIF, LEFT, and RIGHT


- Should-Have Computer Skills:

- Visual Basic (VBA)
- SQL (Structured Query Language)
- Python or C Python (open-source version)
- R (open-source) or SAS



# ADDITIONAL SKILLS



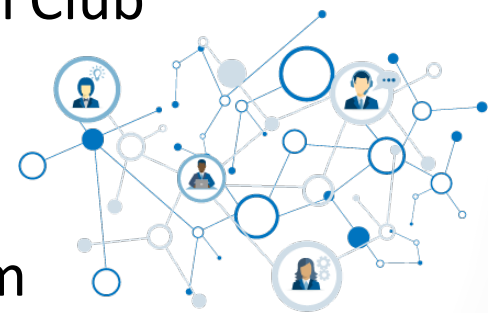
- Predictive Analytics
  - Used to be seen as a competitive advantage for insurers, now it's absolutely necessary
- Robotics/IA 
  - Companies are exploring opportunities for automation in key actuarial processes and tasks, including:

Property and casualty, accident and health	Life and annuity
<ul style="list-style-type: none"><li>• Data preparation—extraction, reconciliation, and formatting</li><li>• Reserving analysis, including rules-based selection</li><li>• Standard report preparation</li><li>• Pricing and rate monitoring</li><li>• Rate filing and rating quotes</li><li>• Experience monitoring and trend analysis</li><li>• Financial planning and analysis support—preparation and calculation of scenarios</li><li>• Data visualizations</li></ul>	<ul style="list-style-type: none"><li>• Modeling and forecasting—model runs and updates</li><li>• Valuation and reporting</li><li>• Reinsurance administration and reporting</li><li>• Experience monitoring</li><li>• Product development and pricing</li><li>• System conversions</li><li>• In-force administration—“workarounds” for existing policies</li></ul>

<http://contingencies.org/robots-join-team-automation-transformation-future-actuarial-work/>

# NETWORKING


- Talk to everyone about being an Actuary
- The actuarial community is small, use it and treat it well
- Become involved with the Alumni from your Alma Mater
- Attend Meetings of Local Actuarial Clubs
  - Southern California Casualty Actuarial Club
- Attend Career Fairs
- Build Your Online Brand
  - LinkedIn, Twitter, Facebook, Instagram
  - Any email correspondence should have a signature
- Research the company and field and make connections on your findings





# TAKE ADVANTAGE OF ACTUARIAL CONNECTION OPPORTUNITIES



- SOA Candidate Connect
  - Newsletter designed for SOA candidates taking exams; updates on initiatives, exam development, and candidate events
- CAS Student Central The logo for CAS Student Central, with the words 'STUDENT' and 'CENTRAL' in orange and 'CAS' in a blue circle.
  - Chris Gross, Predictive Modeling Software
    - <https://www.casstudentcentral.org/new-benefit-for-members-of-cas-student-central-access-to-predictive-modeling-software/>
- Stanford free classes
  - <https://lagunita.stanford.edu/courses/HumanitiesSciences/StatLearning/Winter2016/about>
- Kaggle
  - <https://www.soa.org/predictive-analytics/kaggle-program/>
- SOA/CAS Seminars – Podcasts, Professional Development Courses

# ORGANIZATIONS TO JOIN



- Organization of Latino Actuaries (OLA)



- <http://latinoactuaries.org/>

- International Association of Black Actuaries (IABA)



- <https://www.blackactuaries.org/>

- Read field related publications

- Contingencies

- <http://contingencies.org/>



- Actuarial Review

- <https://ar.casact.org/>



# LINKEDIN GROUPS TO JOIN



- SOA
- CAS
- Ezra Penland
- The Entry Level Actuary
- Reinsurance Actuaries, Cat Modelers and Underwriters
- Life Actuaries and Actuarial Analysts Worldwide
- Casualty/Health/Consulting/Pension Actuaries and Actuarial Analysts Worldwide (separate groups)
- The Catastrophe Risk Modeling Group
- The Insurance Predictive Modeling Group
- Actuaries Networking for Career Opportunities
- Actuary Network – The #1 Group for Actuaries
- Follow Influencers



# RESUME

- Contact Information at the top
- Exams Passed
- Your Next Sitting
- Professional Experience
  - Actuarial Internships
- Education, Anticipated Graduation Date, GPA
- Relevant Coursework
- Technical Skills
- Certifications
- Leadership and Activities
- Review formatting – is it consistent and attractive?



# JOHN R. SMITH

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## ACTUARIAL EXAMS

Passed Exam P/1, July 2017  
Passed Exam FM/2, February 2018  
Passed Exam MFE/3F, July 2018  
Sitting for Exam C4, June 2019

## PROFESSIONAL EXPERIENCE

Department of Mathematics, NYU – New York, NY August 2015 – Present  
*Mentor and Grader, Calculus I/II*

- Prepare, distribute, and provide solutions for exam review sessions
- Responsible for scoring and correcting weekly quizzes and bi-weekly exams

Reinsurance Company – Boston, MA May 2018 – August 2018  
*Actuarial Intern*

- Developed Excel spreadsheets that eased the pricing of three different lines of business
- Evaluated competitor rate changes for trends in pricing, to compare to company's method of pricing
- Presented rate change findings as graphical results to company board, consisting of actuaries and non-technical managers

Life Insurance Company – New York, NY May 2017 – August 2017  
*Actuarial Intern*

- Assisted in the development of asset and liability models, used to improve current policy guidelines
- Generated user reports and added new assumptions, improving current models
- Ensured accurate input of consumer data using Excel and Access

## EDUCATION

New York University – New York, NY Expected May 2020  
*Bachelor of Science, Actuarial Science (GPA: 3.6 / 4.0) Minor: Economics Awards and Honors: Dean's List, NYU Scholar Award, Martin Luther King Jr. Scholarship*

## TECHNICAL SKILLS

Microsoft Office Suite (Excel and Access), VBA, SQL, and SAS

## CERTIFICATIONS

Microsoft Certified Systems Engineer (MCSE)

## LEADERSHIP & ACTIVITIES

New Actuarial Club, NYU – New York, NY August 2015 – Present  
*President (August 2018 – Present), Treasurer (August 2017 – August 2018)*

- Lead monthly meetings for Actuarial Club members; meeting topics include exam preparation, internship opportunities, and interview tips, among others
- Act as liaison between Actuarial Club members and hiring managers of local actuarial employers
- Organized efforts to create the Actuarial Club Sponsored Scholarship, awarded to one incoming freshman each fall

Habitat for Humanity – Armonk, NY June 2014 – Present  
*Construction Team Volunteer*

- Work with local chapter of Habitat for Humanity to build homes for families in need



# EMAIL SIGNATURE

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Ezra Penland Actuarial Recruitment

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[www.EzraPenland.com](http://www.EzraPenland.com)

[Sally Ezra LinkedIn](#)

This is a must have for job seekers



# INTERVIEW ETIQUETTE

- Greet your interviewers as Ms or Mr
- Make sure your cell phone is turned off!
- Look people in the eye and smile
  - Communication is key in this field
- Firm handshake
- Let the company take the lead during your interview
  - Try not to over talk and let the silences happen
- Sit up straight and lean slightly forward
- Take notes
- Arrive 15 minutes early, but no earlier
- Send a 'Thank You' note after your interview
  - Email is okay, but not voicemail



# INTERVIEW QUESTIONS



- What does an actuary do?
- What's going on in the industry right now?
- What was your favorite and least favorite class in college and why?
- What was the most difficult actuarial concept you have learned? Can you please explain it.
- What do you know about our company?
- Why would you choose P&C over health (or life or pension) insurance or vice versa?
- Describe a time when you have had to work with a particularly large data set.
- Explain a complicated mathematical concept in simple terms as if talking to your grandparents.
- What is your strategy when studying for exams?
- Questions based on technical skills listed on resume
- Based on your previous experiences, what did you learn at a previous job that would help you as an actuary?
- Explain data.
- More Interview Questions can be found on Ezra Penland
  - <https://www.ezrapenland.com/interviewquestions/>



# ONLINE RESOURCES



- The Entry-Level Actuary: <https://www.linkedin.com/groups/3701842/>
- Student Central: <https://www.casstudentcentral.org/>
- SOA Candidate Connect: <https://www.soa.org/future-actuaries/candidate-connect-landing/>
- Actuary of the Future: <https://www.soa.org/sections/actuary-of-future/>
- Scholarships – Actuarial Foundation and local clubs – Ezra Penland offers one twice a year as well!
- Society of Actuaries ([www.soa.org](http://www.soa.org))
- Casualty Actuarial Society ([www.casact.org](http://www.casact.org))
- Ezra Penland Salary Survey: [https://s3.amazonaws.com/cpenlandsite/2018\\_Ezra\\_Penland\\_Actuary\\_Salary\\_Surveys.pdf](https://s3.amazonaws.com/cpenlandsite/2018_Ezra_Penland_Actuary_Salary_Surveys.pdf)

# THANK YOU

- Prepared for the California Actuarial Student Summit, University of California – Santa Barbara (May 24, 2019)
- For a digital copy of this presentation, please contact [actuaries@EzraPenland.com](mailto:actuaries@EzraPenland.com)





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