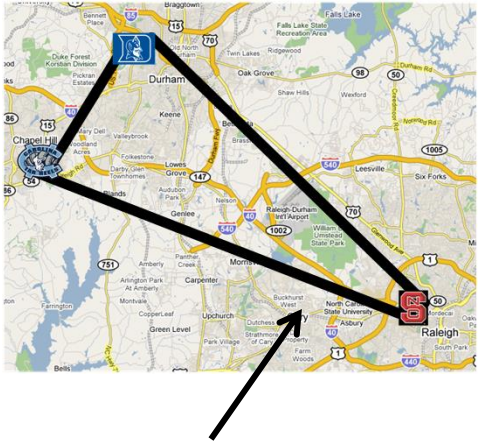
SAS Institute Inc is located in Cary, North Carolina



Cary is part of the Research Triangle

* Duke, UNC Chapel Hill, and NC State Univ

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SAS World Headquarter in Cary, North Carolina

Company History

- SAS began at North Carolina State University as a project to analyze agricultural research.
- The acronym stood for "statistical analysis system".
- As demand for such software grew, SAS was founded in 1976 to help all sorts of customers – from pharmaceutical companies and banks to academic and governmental entities.

Old punch cards

Early Building, 1980

PC Version

Who is SAS?

- 14,000 Employees Worldwide
- Offices in 59 Countries
- 92 of the Top 100 Companies on the 2018 Fortune Global 1000 List are SAS Customers
- 30.8% Market Share in Advanced Analytics Space

ANALYSTS RANK SAS AS A LEADER IN:

ANALYTICS

MACHINE LEARNING

BIG DATA

DATA SCIENCE PLATFORMS

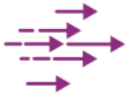
REAL-TIME MARKETING

DATA INTEGRATION

DATA QUALITY

FRAUD DETECTION

RISK MANAGEMENT



STREAMING ANALYTICS

RETAIL ANALYTICS

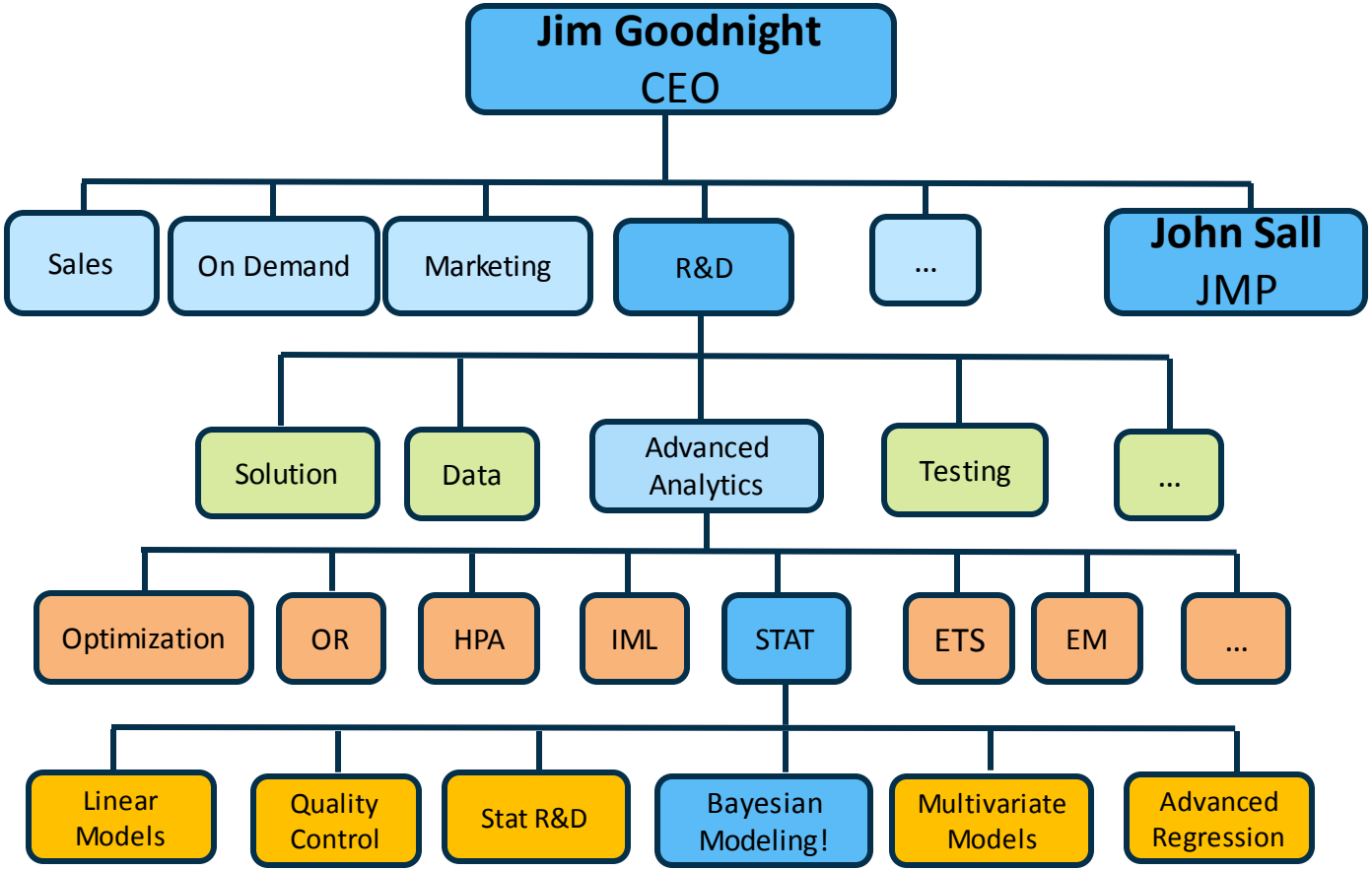
TEXT ANALYTICS

TECHNOLOGY HAS CHANGED. AND SO HAVE WE.

The SAS® Platform integrates with open-source technologies.

- Programming languages such as Python and R
- Data frameworks such as Hadoop
- Changing physical and virtual hardware environments
- Can deploy in all major clouds

sas



The SAS/STAT Product is Responsible for Developing Statistical Modeling Tools

Motivation	Recent Development
Complex data	Extensions of linear models, Bayesian models, structural equation models, quantile regression, nonparametric regression, survival analysis, spatial analysis
Missing data	Imputation, Bayesian and weighted methods
Messy data	Outlier detection, robust methods
Observational data	Methods for controlling confounding, causal inference
Planned data	Survey methods, interim analysis, sample size computation, design of experiments
Large data	Model selection, predictive models, scalable algorithms, parallel and distributed processing

1. What are the job opportunities for statisticians in your organization?
2. Describe the range of skills statisticians need to succeed in your organization?
3. What is the career path for statisticians in your organization?
4. Is your organization currently hiring statisticians?
5. What advice would you give to students based on your experience?

What are the job opportunities for statisticians in your organization?

- Research Statistician Developer (PhD)
- Consultant (Master's Degree or Extensive Industrial Experience)
  - In many different fields: Risk, Retails, Banking, Fraud, etc.
- Data Scientist (Experience in data analysis, modeling, and programming)
- Internship Opportunities
  - Year around or summer positions (colleague or graduate students)

Describe the range of skills statisticians need to succeed in your organization?

- In-depth statistical knowledge in some areas (modeling and statistical computing)
- Experience writing large, complex programs in C or C-like scientific programming language
- Written and verbal communication skills

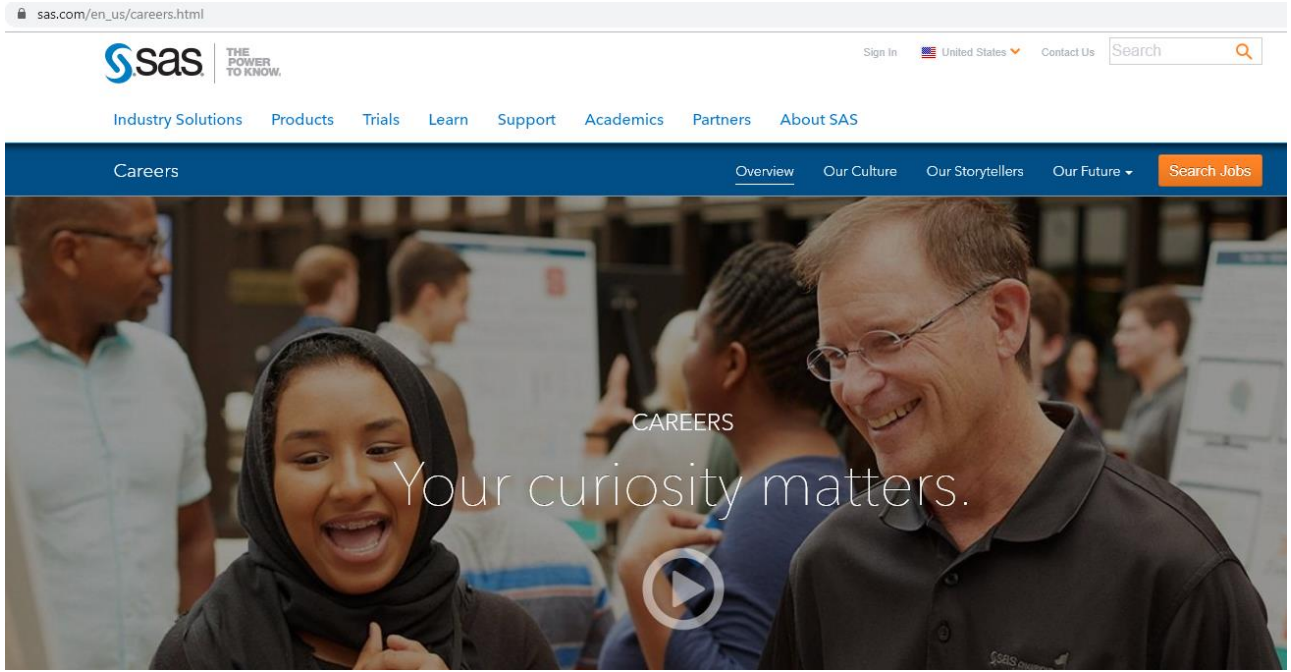
What is the career path for statisticians in your organization?

- Technical Track
  - Research Statistician Developer
  - Sr Research Statistician Developer
  - Principle Research Statistician Developer (career track)
  - Distinguished Research Statistician Developer
- Management Track

- Different groups have separate categories:
  - Software Developer, OR Specialist, Analytical Consultant, Data Scientist, etc.

Is your organization currently hiring statisticians?

- Yes, in various departments.
- The best place to search for jobs is www.sas.com/jobs.



What advice would you give to students based on your experience?

- Flexibility
- Efficiency
- Willingness to program
- Communication and leadership awareness
- Publications