MATH *Drives Careers*

Forensic Analyst NATIONAL SECURITY ANALYST COMPUTATIONAL BIOLOGIST
Analyst Data Scientist MOTION PICTURE PRODUCTION
INTERNET SEARCH
Insurance SOFTWARE DEVELOPER STATISTICIAN Economist
Actuary DEFENSE INDUSTRY Medicine
Imaging MANUFACTURING
SCIENTIST Mathematician MEDICAL IMAGING
QUANT COMPUTATIONAL SCIENTIST MILITARY
CLIMATOLOGY MANAGEMENT CONSULTANT ECOLOGY Finance OIL
UTILITIES
COMMUNICATIONS RISK MANAGER NATIONAL SECURITY
GAS EXPLORATION BIOSTATISTICIAN
Business Services PROCESS CONTROL
Software Engineer Pharmaceuticals NATIONAL LABS

Mathematics Awareness Month / April 2015

Valeria de Paiva
Senior Research Scientist
Nuance Communications, Inc.
Sunnyvale, California, USA

I work in natural language processing (NLP), where I use probability theory, statistics, and programming to convert human language into data that is used in complicated tasks, such as speech recognition, information extraction, and automatic translation.

Clay Thompson
Senior Scientist
Pfizer, Inc.
Cambridge, Massachusetts, USA

My job exists at the intersection of biology, mathematics, and computer science. I try to increase the efficiency of drug development by designing and testing mathematical models of disease (especially cardiovascular, metabolic, and endocrine diseases).

Karen Patterson
Oceanographer
Naval Research Laboratory,
Remote Sensing Division
Washington, D.C., USA

I develop methods to determine environmental conditions from imagery collected by aircraft and satellites. I use computer programming to develop algorithms and math theory and approximations to verify those algorithms.

Jonathan Adler
Advanced Analytics Consultant
Promontory Growth
Washington, D.C., USA

I use statistical models, optimization techniques, and software to analyze clients' data, helping them run their businesses more efficiently.

Jean Steiner
Data Scientist
Google, Inc.
New York, New York, USA

Working directly with large data sets, I help software engineers design better products and advertisers make better use of their accounts.

Fern Hunt
Applied and Computational Mathematician
National Institute of Standards and Technology
Gaithersburg, Maryland, USA

My research is designed to improve and support the development of measurement-based science for information technology, materials science, and biotechnology.

John Parkinson
Actuary
The Savitz Organization
Philadelphia, Pennsylvania, USA

I use mathematics, statistics, and financial theory to determine the liabilities of pension plans by quantifying future expectations of demographic and financial events.

Andrew R. Conn
Research Staff Member and
Research Relationship Manager
Chemicals and Petroleum,
IBM Thomas J. Watson Research Center
Yorktown Heights, New York, USA

I work in an area rich in problems. I use mathematical tools, including nonlinear optimization, mixed integer nonlinear programming, differential equations, modeling, risk assessment, high performance computing, simulation, and statistics.
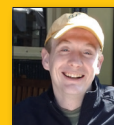
Matthew Williams
Mathematical Statistician
Substance Abuse and Mental Health Services Administration,
US Department of Health and Human Services
Rockville, Maryland, USA

I help design and oversee surveys of individuals and institutions to help estimate measures such as population, agricultural production, and public health. These estimates are used to inform policy.

Theresa Rahikka
Applied Research Mathematician
National Security Agency (NSA)
Fort Meade, Maryland, USA

I started out with an interest in teaching math, but switched career directions and started working for the NSA. I began working on error correction, which involves ensuring accurate transmission of data over noisy or unreliable channels.

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