National Aeronautics and Space Administration

Assistant Professor/ Research Scientist

Dr. Michael Kaufman

Assistant Professor
San Jose State University

Research Scientist
NASA Ames Research Center

I make computer models of the chemical and physical makeup of the regions around new stars. Basically, I "teach" the computer how gases near the stars heat up, move, and change. I then compare the computer model to the observations of other scientists to see if they match up. I also teach classes on astronomy at San Jose State University.

Areas of expertise:

- The formation of stars

How I first became interested in this profession:

I liked the space program when I was in grade school. Looking at the stars always fascinated me.

What helped prepare me for this job:

Math and physics courses have been a big help for me. Also, good teachers helped prepare me by teaching me how to think and by showing me the kinds of jobs I could have once I got the skills.

My role models or inspirations:

I was greatly inspired by my teachers and professors. They had a passion for science, and they loved their jobs.

My education and training:

- B.A, Physics, Middlebury College
- M.S. and Ph.D., Astrophysics, Johns Hopkins University

My career path:

- Researcher at NASA on the National Research Council Fellowship for three years
- Assistant professor at San Jose State University for two years

What I like about my job:

I like being able to combine teaching with exploring things that nobody's ever seen before.

What I don't like about my job:

I don't like the business end of things, like faculty meetings and/or anything that takes me away from teaching or research.

My advice to anyone interested in this occupation:

Do well in math and physics. It's easier to do well if it's something you love. You should also be pretty comfortable with computers.

Additional Resources:

- American Institute of Biological Sciences
  http://www.aibs.org
- American Physiological Society
  http://www.faseb.org/aps
- American Society for Biochemistry and Molecular Biology
  http://www.biophysics.org/biophys/society/biohome.htm
- American Society for Microbiology
  http://www.asmusa.org
- Astrobiology Summer Academy
  http://academy.arc.nasa.gov/
- Biotechnology Industry Organization
  http://www.bio.org/welcome.html
- Education Pays Calculator
  http://www.educationpays.org/calc.asp
- Earth to Orbit: Engineering Design Challenges
  http://eto.nasa.gov/
- Graduate Student Researchers Program
  http://spacelink.nasa.gov/Instructional.Materials/NASA.Educational.Products/Graduate.Student.Researchers.Program.Brochure/.index.html
- MATHCOUNTS Competition
  http://mathcounts.org/
- Minority University Research and Education Programs
  http://mured.nasaprs.com/
- NASA Cooperative Education Program for college students
  http://spacelink.nasa.gov/Educational.Services/NASA.Education.Programs/Student.Support/NASA.Cooperative.Education.Program/.index.html
- NASA Jobs
  http://nasajobs.nasa.gov/
- NASA Office of Life and Microgravity Sciences and Applications
  http://www.hq.nasa.gov/office/olmsa/
- NASA SHARP Internship Program for high-schoolers
  http://www.mtsibase.com/sharp/
- NASA Student Employment
  http://nasajobs.nasa.gov/stud_opps/employment/index.htm
- NASA Student Involvement Program student contests
  http://www.nsip.net/index.cfm
- Order NASA career videos such as "Engineers: Turning Ideas into Reality," "Careers: Aerospace Engineer" or "Reaching for the Stars" from NASA CORE.
  http://core.nasa.gov
- Revolutionary Vehicle Concepts and Systems student competition
  http://avst.larc.nasa.gov/competitions.html
- Student's Guide to Astrobiology
  http://www.astrobiology.com/student.html
- Tech-Interns.com
  http://www.tech-interns.com/

Please take a moment to evaluate this product at:
http://ehb2.gsfc.nasa.gov/edcats/educational_topic

Your evaluation and suggestions are vital to continually improving NASA educational materials.
Thank you.