

# KEITH V. LUCAS

KEITH@KEITHVLUCAS.COM • WWW.KEITHVLUCAS.COM • (650) 619-3907

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## EDUCATION

- University of California**, Berkeley, CA 2007  
Master of Public Policy, Goldman School of Public Policy
- Stanford University**, Stanford, CA 1997  
Ph.D., Department of Aeronautics and Astronautics  
Explored a fluid dynamic phenomenon relevant to fighter aircraft and low-pollutant combustion
- University of Southern California**, Los Angeles, CA 1989  
Master of Science, Department of Aerospace Engineering
- Columbia University**, School of Engineering and Applied Science, New York, NY 1988  
Bachelor of Science, Department of Mechanical Engineering

## SKILLS AND KNOWLEDGE

### Management

- Rapid knowledge acquisition and project planning under tight deadlines and with limited resources
- Development of project requirements, priorities, milestones, measurement, and quality assurance
- Management of teams, including resource planning, hiring, reviews, and mentorship
- Startup of research and development projects and volunteer programs
- Partner relationship management and customer service

### Knowledge Areas

- Policy analysis and program evaluation, using statistics, microeconomics, legal analysis, and budgets
- Information technology, software programming, software development practices, computer networking
- Aerodynamics & mechanical engineering, including turbulence, thermodynamics, and structural analysis
- Computer modeling and statistical analysis through programming and the use of third-party tools
- Financial business models, marketing plans, market research, and target customer analysis

## PUBLIC POLICY

- Monterey Institute of International Studies**, Monterey, CA 1/07 – 5/07  
Policy Analyst
- Analyzed international dual-use biotechnology markets, assessing country capacities and partnerships.
  - Developed metrics to assess capabilities, relationships, and the risks of biological weapons diversion.
- Board of Supervisors, City & County of San Francisco**, San Francisco, CA 6/06 – 8/06  
Intern, Office of the Legislative Analyst
- Analyzed and recommended public policy for the San Francisco Board of Supervisors.
  - Examined statistical trends, economic impact, and administrative and legal constraints and opportunities.
  - Investigated election and voter turnout, wellness incentives for the city's employee health program, citywide family-friendly policies, and business improvement districts (for the Controller's Office).
  - Provided staff support to members of the Budget & Finance and Rules Committees.
- Mayor's Office of Policy and Finance**, San Francisco, CA 1/06 – 5/06  
Policy Analyst Team Member
- Co-authored a policy analysis report for the newly formed Task Force for Transitional Youth.
  - Identified service gaps for youth aging-out of foster care, juvenile justice, and other institutions.
  - Recommended housing policy alternatives and an analytical framework for assessing them.
- National & Homeland Security**, Goldman School, University of California, Berkeley, CA 1/06 – 5/06  
Graduate Student Researcher
- Co-authored a paper on synthetic biology security threats and interventions for the MacArthur Foundation; interviewed scientists from domestic and foreign institutions; assembled and interpreted survey results.
  - Authored a companion analysis assessing physics modeling techniques for airborne biological weapons.

**TECHNOLOGY MANAGEMENT AND DEVELOPMENT****Companion Worlds**, Cupertino, CA

7/03 – 8/05

Director of Internet Technology

- Led the development of an Internet application for sharing multimedia content among mobile devices.
- Patent co-author, U.S. patent "Communication System and Protocol for an Interactive Device".
- Assembled product requirements and developed an iterative project plan.
- Managed the information technology (IT) network infrastructure.

**8NN**, San Mateo, CA

10/01 – 12/01

President &amp; COO

- Recruited by the Chairman and lead investor to deliver a "go/no-go" decision within 2 months.
- Developed a telephone services business model, including sales, resource, & cash flow projections.
- Established dialogs with potential partners, including Sprint and MCI.
- Responsible for market research and analysis, operations, and legal and financial services.

**MSC.Software / Knowledge Revolution**, San Mateo, CA

2/97 – 3/00

Manager of Working Model FEA

- Managed the design and development of a mechanical engineering software product with annual revenues of approximately \$800,000.
- Retained by MSC in its acquisition of Knowledge Revolution and promoted to manager during a post-acquisition reorganization, while the second-most junior member of the group.
- Salvaged a strained relationship between MSC.Software and CoCreate, a client; overcame ill will, converting a 1-week turn-around ultimatum into a trusted relationship.
- Managed business partnerships, provided technical leadership, and mentored junior engineers.

**Other Experience**

- Software Architect & Project Lead, REPLICUS Software Corporation, Palo Alto, CA 12/02 – 9/03
- Technology & Business Analysis Consultant, Dealix, Palo Alto, CA 1/02 – 9/02
- Senior Software Engineer for Internet Security, Waterfall Networks, San Mateo, CA 1/01 – 6/01
- Senior Software Engineer, ShortCycles, San Bruno, CA 3/00 – 12/00

**AWARDS / RECOGNITION**

- Presidential Management Fellow finalist, class of 2007 3/07
- Student Graduation Speaker, Goldman School of Public Policy, UC Berkeley, CA 3/07
- Graduate Student Instructor of the Year, Goldman School of Public Policy, UC Berkeley, CA 3/07
- Fr. Eugene Boyle Award for leadership and service, Catholic Community, Stanford University 5/98

**COMMUNITY SERVICE**

- Vice Chair, Juvenile Justice & Delinquency Prevention Commission, San Mateo, CA 5/05 – present
- Volunteer, WiRED International, Montara, CA 7/03 – 9/05
- Tutor, Eastside College Preparatory School, East Palo Alto, CA 9/00 – 5/02
- Director, Community Service Volunteers, Stanford Catholic Community, Stanford University 9/97 – 5/99
- Coordinator/Volunteer, Juvenile Hall Bible Study, Catholic Community, Stanford University 6/94 – 1/99
- Founder, Habitat for Humanity Group, Catholic Community, Stanford University 9/93 – 6/95
- Sunday School Teacher, Palo Alto, CA 9/91 – 6/92

**PUBLICATIONS**

- Lucas, K. V., "Aerosol Attack Efficiency: The Effects of Geometry & Toxicity," Information Technology and Homeland Security Project, Goldman School of Public Policy, Univ. of California, Berkeley, June, 2007.
- Lucas, K. V., "Physics Modeling of Airborne Biological Weapons," Information Technology and Homeland Security Project, Goldman School of Public Policy, University of California, Berkeley, October, 2006.
- Maurer, S., Lucas, K. V., and Terrell, S., "From Understanding to Action: Community-Based Options for Improving Safety and Security in Synthetic Biology," Information Technology and Homeland Security Project, Goldman School of Public Policy, University of California, Berkeley, April, 2006.
- Lucas, K. V., "A Numerical Investigation of Three-Dimensional Vortex Breakdown," Ph.D. Dissertation, Department of Aeronautics and Astronautics, Stanford University, 1997.