

Jonathon J. Smith

CONTACT INFORMATION

199 S. Madison Ave. #12
Pasadena, CA 91101

Mobile: +1-626-319-2164
E-mail: jonathon.j.smith@gmail.com

EDUCATION

University of Southern California, Los Angeles, CA

M.S., Astronautical Engineering, May 2012

Emphasis in probability theory. Focused coursework in astrodynamics, orbit determination, estimation theory, modeling and simulation of stochastic systems

Embry-Riddle Aeronautical University, Daytona Beach, FL

B.S., Engineering Physics, May 2004

Magna cum Laude, Minor in Mathematics

PROFESSIONAL EXPERIENCE

Jet Propulsion Laboratory, Pasadena, CA

October 2008 to Present

Technical Group Supervisor, *Mission Design and Navigation System Engineering*

Supervise a group of 12 technologists, infrastructure, and systems engineers. Also manage an infrastructure Service Center that provides computing resources to the Mission Design and Navigation Section with \$2M annual budget.

Group Lead, *Mission Design and Navigation Software*

Work extensively with outreach, training and development for the Monte project, JPLs astrodynamic computing Python library. — Leading development of non-linear navigation filter and uncertainty propagator in conjunction with UT Austin. — Co-lead on the Spacecraft In The Shot project.

Orbit Determination Analyst, *Outer Planets Navigation Group*

Orbit determination (OD) analyst on the Equinox and Solstice segments of NASA's Cassini mission, the EPOXI encounter with comet Hartley-2, and the return-to-Earth leg of JAXA's Hayabusa mission.

KinextX Inc., Tempe, AZ

August 2005 to October 2008

Orbit Determination / Maneuver Analyst

Space Navigation and Flight Dynamics Group

Navigation analyst (OD and Maneuver Design) for NASA's **New Horizons** mission, from pre-launch through the Jupiter flyby in 2007. Also provided navigation support for NASA's **MESSENGER** mission, serving as prime-analyst for Deep Space Maneuver 2 (DSM-2).

SOFTWARE COMPETENCIES

Python (NumPy / SciPy, IPython, matplotlib, Sphinx, Jinja, unittest, more), Python package development, LaTeX, MATLAB, C++

Tools

- DVCS: Mercurial, Git
- Database systems: (MySQL, MongoDB)
- Web Development: HTML4, CSS, Django, Apache
- Operating Systems: Apple OSX, Linux, other Unix variants

AWARDS

NASA Group Achievement Awards for EPOXI Navigation (2010), Hayabusa Earth Return Navigation Support (2010), and New Horizons Spacecraft Development (2006)
First Place, 2004 AIAA Undergraduate Team Space Competition
Embry Riddle Math Student of the Year, 2003