

DANIEL A ALLARD

SOFTWARE MANAGER, ARCHITECT and DEVELOPER

CONTACT

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PROFILE

- Software lead with 34 years building critical systems for NASA and ESA mission operations.
- Manager who drives engineering, design and development tasks with a fusion of creative energy, plus experience in a variety of roles from early S/W task planning through delivery and deployment.
- Proposes, develops and defends funding and staffing plans, often through challenging fiscal situations.
- Establishes communication lines across customers, developers, and managers
- Remote and local team management using collaboration tools including Figma, Github, JIRA, Confluence WIki, Testrails
- Hands on software maturation validation and verification
- Uses minimum viable product (MVP) planning techniques toward keeping budgets in check and tasks on schedule.
- Builds teams and mentors developers and other technical leads

EDUCATION

B.S. ENGINEERING PHYSICS

SEPT 1991
Tufts University
Medford, MA

Computer Science master level coursework 1993-1995
USC, CA

KEY SKILLS

Software task management
Agile process adaptation
Proposal development
Software documentation
Validation and Verification (V&V)
Web Accessibility Audit and Repair
Java, Python, Teams
AI LLM assisted coding

INTERESTS

Music
Miniatures Painting

EXPERIENCE

SOFTWARE MANAGER AND ARCHITECT • 1997 TO PRESENT

Jet Propulsion Laboratory • Pasadena, CA

- Europa Clipper Planning and Analysis Software Deputy Lead. Co-manager of 20 developers, ~30 tools, 20-million-dollar budget.
- Multi-Mission Downlink Analysis Software lead, 5-10 developers, 5–10-million-dollar budgets. Architected and designed downlink software systems for Europa Clipper, M20, MSL, and SMAP.
- Lead design and development of Mars Operations Relay Service (MaROS) responsible for orbital relay planning over 450 terabits of data since 2009.
- Developing and executing V&V tests User of AWS cloud
- Papers [\[1\]](#) [\[2\]](#) [\[3\]](#) [\[4\]](#) [\[5\]](#) [\[6\]](#) [\[7\]](#)

SOFTWARE DEVELOPER AND RESEARCHER • 1991 TO PRESENT

Jet Propulsion Laboratory • Pasadena, CA

- Data processing and web UI tools, starting with DSN and Cassini
- Software for operators interacting with spacecraft data
- Lead developer M20 Entry Descent and Landing analysis software
- Flight system simulation and onboard flight software analysis