HEGARTY RESEARCH LLC

Astrodynamics/Orbital Design and Analysis Engineer (2018-06)

Job Description: Provide direct engineering analysis to senior project leader and engineers at a customer cyber research and development innovation center. The position requires a broad understanding of technology principals across in wide range of technical disciplines.

Experience:

Required

Experience in orbital mechanics, orbital dynamics, orbit design, or astrodynamics; complete understanding of orbital design and analyses.

Experience with orbit design and simulation tools (i.e. GMAT, EMTG, STK, MATLAB, COTS mission planning tools, etc.)

Preferred

Experience with spacecraft trajectory optimization methods and software (C++, Python, MATLAB).

Education:

Required

BS degree in aerospace engineering; Allowable substitution: BS or BA degree in mathematics, physics, or other related technical or engineering discipline. Minimum of six years working on advanced projects.

Preferred

Master's Degree in aerospace engineering
Minimum of three years working on advanced projects relevant to Customer Systems.
DAU Engineering Level 2 or 3 with R&D or Systems Acquisition focus.

Knowledge/Skills and Abilities:

Required

Specific knowledge of at least three of the following: visibility/eclipse calculations, orbit/attitude determination, high precision propagation, regression analysis, and Kalman filtering.
Object-oriented software development.
Possess excellent verbal and written communication and organization skills.
Possess a team-oriented personality.

Possess a high level of self-motivation; able to carry out tasks without continuous supervision.
Algorithm development and model specification experience.
Ability to clearly communicate mathematical concepts and translate them into pseudo-code.
Scripting experience in MATLAB, Python, or PERL.
Proficient in Microsoft Office Suite applications including Word, Excel, PowerPoint, and Outlook. Working knowledge of SharePoint, Project, and Visio.

Preferred

Visual Studio integrated development environments.
GIT software version control system.
QT, Boost, XML.
Agile software development.
Multi-threaded software programming.
Satellite ground systems or satellite command and control. Mission scheduling.
Experience with processing GNSS measurement data.

Security:

TS/SCI Clearance or In-Scope Eligibility Required
Ability to pass CI Poly and/or Full Scope Poly

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