



## Toyon Research Corporation

6800 Cortona Drive  
Goleta, CA 93117  
www.toyon.com

CAREER OPPORTUNITIES – Santa Barbara, CA

### Data Analytics Analyst (Ref #1901-P)

Toyon is seeking an analyst to support advanced mathematical analysis related to sensor tracking and data fusion. Toyon's Autonomous Systems team conducts research for the Data Fusion, Asset Control, and Analytical Services groups. The analyst would work primarily with the Analytical Services group, but would be expected to gain familiarity with and potentially work with all three groups.

The ideal candidate will have the following experience, skills, and ambitions:

- Knowledge of remote sensing techniques (e.g. Radar, Optical)
- Good communication, interpersonal and presentation skills
- A desire to directly work with and present results to customers
- Strong problem-solving/analytical skills
- Ability to formulate problems given widely varying constraints
- Ability to work with others to conceptualize and solve problems
- Willing to work autonomously on projects toward common team goals
- Programming familiarity in C++, MATLAB, or/and Python
- Ability to understand, modify, and execute simulations of physical or electronic systems
- Master's or Ph.D. degree in an engineering, physics, math, or computer science program
- Existing security clearance desirable

**U.S. Citizenship is required.** Ability to qualify for a US Department of Defense security clearance required.

Please e-mail resume to:

employment@toyon.com

**WE OFFER AN EXCEPTIONAL EMPLOYEE BENEFITS PACKAGE!**

## Autonomous Systems (AS) Team

Autonomous Systems team designs, develops, and tests advanced multi-platform mission control algorithms to support complex autonomous military missions. To accomplish the task requires the complex coordination of multiple algorithms to achieve the effects of an artificial intelligence system.

To achieve this goal the AS team works in three interrelated technical areas:

- **Data Fusion:** The problems of interest are multi-sensor and multi-platform track fusion and correlation with state-of-the-art surveillance systems operating in a multi-target environment using data fusion. Good role for meticulous math, physics, and engineering intellectuals.
  - Relevant course work: Advanced mathematics to include linear algebra, numerical methods, and estimation theory (e.g. Bayes Theory, Kalman Filters, particle filters), and ability to work comfortably in C++, MATLAB, and/or Python.
  
- **Analytical Services:** Apply advanced mission level simulation and evaluation software to provide both stimulus and grading for algorithm performance. Measuring system and component performance is an important part of any advanced algorithms development that requires knowledge of all the underlying algorithms under test. The work in this area spans a wide breadth of technical fields and military operational domains. Good place for top down thinkers.
  - Relevant course work: Physics, math, programming familiarity, numerical analysis. Course level familiarity with data fusion estimation theory is helpful. Simulations are written in C++. Metrics are written in MATLAB and Python.
  
- **Asset Control:** Multi-asset control algorithms require multiple nested control loops ranging from high-frequency action in the moment, to low frequency task selection.
  - Relevant course work: Control systems, numerical methods, optimization techniques, and ability to program in C++, MATLAB, and/or Python.

Toyon is an Equal Employment Opportunity Employer Minorities/Females/Vet/Disability