



**Air Force Research Laboratory  
Information Directorate  
Rome, New York**

29 May 2013 – 9 August 2013



## **INFORMATION ASSURANCE INTERNSHIP**



*The Information Directorate seeks outstanding undergraduate students for a paid research internship. The summer 2013 internship focuses on the science of mission assurance in a cloud computing environment, with emphasis on assuring Air Force mission essential functions in a contested environment. We invite applications from juniors and seniors in mathematics, computer engineering, electrical engineering, physics and computer science.*

### **THE SCIENCE OF MISSION ASSURANCE**

We seek to investigate information assurance at all six phases of the information life cycle:

1. Information generation
2. Information processing
3. Information storage
4. Information transmission
5. Information consumption
6. Information destruction

We aim to develop mathematical representations of critical functions, decompose them into atomic elements, define the relationships among elements, assess fractal properties of subsystems and systems, identify potential vulnerabilities and risks, and develop mitigation strategies for assured operation in a contested environment.

Interns will work on teams with government mentors to research vulnerabilities and threats, participate in facilitated discussions, solve complex problems, present and discuss solutions, and write and submit reports on time.

**APPLICATION PROCESS:** Candidates who hold US citizenship and qualify for a Department of Defense security clearance may apply by emailing a resume, an unofficial transcript of grades, a 100-word biography, two letters of recommendation and a headshot photo to [iast@rl.af.mil](mailto:iast@rl.af.mil) no later than 8 December 2012. Please combine all documents listed into a single PDF file for submission. For more information contact: IAST 315-330-4370.

For more information visit AFRL Information Directorate at <http://www.wpafb.af.mil/afri/> or the IA Internship website at <http://iainternship.com/>

**REFERENCE:** Dr. Kamal Jabbour, ST & Dr. Sarah Muccio, "The Science of Mission Assurance" Journal of Strategic Security Volume IV Issue 2 2011, pp. 61-74.