Position Title:	Human-Agent Interaction Scientist
Position Reference Number:	PDNSID002
Division	Intelligence, Surveillance & Space Division (ISSD)
Position Classification:	S&T3-4
Position Location:	Edinburgh, South Australia
Security Level:	TSPV
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Academic Disciplines

Aerospace/ Aeronautical Engineering, Naval Architecture	Chemical, Radiological, Biological, Food sciences	Materials Science
■ Computer Sciences, IT, Software Engineering, Telecommunications	■ Mathematics and physics	■ Psychology and Social Sciences
Mechanical and Mechatronic Engineering (including robotics)	Electronic/ Electrical Engineering	Other

Position Overview

- Conduct challenging research in support of human-machine partnerships
- Create novel interfacing solutions to narrow the human-machine communicative gulf
- Work collaboratively with multi-disciplinary teams spanning Defence and academia

The Human-Agent Interaction Scientist will develop innovative techniques for geospatial intelligence analysts. Working within a multi-disciplinary team comprising human-computer interaction (HCI), computer science and behavioural researchers, you will provide the necessary skills to advance explainable artificial intelligence (XAI), and more broadly the notion of 'partnering with machines'. You will enjoy undertaking challenging research to convey machine learnt or inferred findings via novel interaction methods, to narrow the human-machine communicative gulf in support of Australian Defence requirements.

This position provides the opportunity for creativity, and to think critically whilst working in collaboration with ADF personnel, academia and industry.

Position Duties

Under limited direction, the Human-Agent Interaction Scientist will:

1. Develop demonstrable techniques in support of explainable artificial intelligence for Australian geospatial intelligence analysts.
2. As part of a small team, develop novel human-computer interaction approaches to convey salient machine inferred or learnt findings in support of enhanced analytic processes.
3. Demonstrate the application of these approaches to large and dynamic spatio-temporal data sets.
4. Quantify the resultant approaches for geospatial intelligence analysts. These might include increased situation awareness and productivity, and improved assessments.
5. Transition successful approaches to prototypes at higher levels of technology readiness.
6. Maintain awareness of the state of the art in applicable approaches and techniques.

Other Requirements

Appointee will be initially engaged on a **Secret (NV1) Security Clearance** with an upgrade to TSPV required upon commencement.