Changing how humans communicate with machines.

Thinking Solutions Pty Ltd was incorporated in Sydney, 2006 to create a prototype of how computers could emulate human functions better, based on Cognitive Scientist, John Ball’s, Patom Theory.

Patom Theory has been exploited in a multilingual Natural Language Understanding (NLU) prototype that demonstrates a solution to open scientific problems in the field, considered AI-hard (Artificial Intelligence) till now.

In 2013, John Ball, the CTO/inventor integrated a language independent linguistic framework, called Role and Reference Grammar (RRG) developed by Prof. Robert Van Valin, Jr and Prof. William Foley. The result is an ability to break down any language by meaning and enable human-like accuracy for future language based applications such as accurate machine translation, digital assistants, connected home and car conversation, text analytics, semantic search, language learning and more.

This now forms the basis for Project Turing between Thinking Solutions and The University of Sydney. The project will load at least 2 languages in the NLU (Mandarin and English) and prepare the system for Conversation, Translation and Understanding to be the human computer interface of the future.

**Key Outcomes for Project Turing – 6 months**

- Load initial language content for Mandarin and English – inputting vocabulary and ‘patterns’ according to the NLU framework
- Create a front end Database for future automation and crowd sourcing loading of languages content
- Maintain and improve ‘Conversation’ code in the NLU
- Improve front end clients and API
- create Android ‘showcase’ App leveraging conversation and understanding capability of NLU
What we offer

Thinking Solutions is the R&D company for a California company in formation. The opportunity is for University students to come on board Project Turing and be part of a bleeding edge foray into one of the most exciting challenges today – machine intelligence. The team you will be joining consists of accomplished Doctors and Executive spanning the globe from Heinrich Heine University in Dusseldorf, San Diego, with an emerging presence in Silicon Valley. The potential opportunity after helping make the 6 month project a success, is to become an early employee of a Silicon Valley startup with benefits such as Employee Share Options.

http://www.computerworld.com/blog/speaking-artificial-intelligence/

Project Turing Team - Role requirements

Personal Attributes:

● Exceptional personal drive and commitment to the project
● Curiosity
● Initiative characteristic of Silicon Valley startup employees
● Endless drive to learn
● Candor, open communicator.

Expectations:

● Early work to be onsite (at the University) for team introduction, technology introduction, project roles and task direction.
● Work direction will be provided by CTO/Inventor mostly but also by global Executives/COO/CEO.
● Later, some work can be done remotely, checking in with CTO/inventor on their progress.
● Candidates will be expected to ask questions and seek feedback on their work and interaction
Three part-time positions available:

<table>
<thead>
<tr>
<th>Role</th>
<th>Skills Required</th>
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<tbody>
<tr>
<td>Coder #1 Intern</td>
<td>Front end developer. Currently built in .NET with c#. Data sent from web-API from WCF server. MVC5 used in current implementation, but happy to have ported to more open-source friendly environment. Working versions reside in GitHub.</td>
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<tr>
<td>Coder #2 Intern</td>
<td>Context tracking programmer. Code is in .NET, c# and uses dependency injection with structuremap. Role to refactor and improve capabilities of context tracking, pronoun disambiguation etc using our abstracted, language independent model</td>
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<tr>
<td>Coder #3 Intern</td>
<td>This role works closely with coder #2. The existing c#, .NET environment needs tools to help support the deployment of language ‘patterns’ currently in Xml format. While the context tracker works only with the meaning abstraction, that is created by the pattern matching engine which relies on language content loaded. The development is to provide secure interaction with the WCF server environment.</td>
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To apply and for more information, please contact Beth Carey, phone: 0401-713-866

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Closing date: 24 March 2016