



Software Engineer (KTP Associate)

Job Title:	Software Engineer (KTP Associate)
Reference No:	
Reports to:	Project Leads, University of Sunderland Managing Director Atorus Consult (Durham) Limited
Responsible For:	Knowledge Transfer Partnerships (KTP)
Working Hours:	37.5 per week (Knowledge Transfer Partnership, fixed term for 24 months)
Faculty/Service:	Cross – Faculty (Engineering and Advanced Manufacturing / Business and Law)
Location:	Between Atorus Consult (Durham) and University of Sunderland
Main Purpose of Role:	To work closely between the University and Atorus Managing Directors in order to understand current processes and to optimise transition to a new business model. You will develop a Multi-Criterion Decision Framework exploiting and deriving knowledge from data. To provide intelligent tools for construction project management facilitating optimised decision making in multi-actor contexts through knowledge and data rich insights into the DNA of complex projects.

Key Responsibilities and Accountabilities:

Generic Duties and Responsibilities:

In line with the University's Mission, Corporate Strategy and Leadership Attributes, you will:

- Develop a full understanding of the strategic aims and function of the KTP project, the company and University.
- Research and gain understanding of construction project management and data.
- Carry out project management, embed knowledge to the company, and produce documentation
- Disseminate the outputs at appropriate venues.
- Feedback to the project team and deliver the project in accordance with the project plan and management requirements.

Specific Duties and Responsibilities:

- To Research into intelligent tools, services and frameworks exploring emerging approaches for data interrogation and exploitation;
- To present a Competitor's Portfolio.
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- Identify techniques and technologies with high potential to facilitate knowledge discovery.
- To map knowledge review and empirical data/information for SWOT, value and benchmark creation.

- To evaluate performance of the new method by identifying and implementing an effective testing strategy and key performance indicators.
- To create Cause and Effect analysis workflow diagrams.
- To write and present high quality reports and journal/conference papers for publication and dissemination.
- To effectively communicate with project stakeholders and embedding the knowledge into Atorus Consult (Durham) Limited.
- To prepare commercialisation plans to achieve project aim and objectives.

**Special
Circumstances:**



Part 2A: Essential and Desirable Criteria

Essential

Qualifications and Professional Memberships:

2.1 or above in a Computing course (ideally accredited by the British Computer Society or similar) with significant software development as part of the course.

Knowledge and Experience:

Skills:

- Software design, development and testing, with demonstrable coding skill in languages such as Java, C++, etc.
- Project and time management skills
- Ability to review literature, on-line media and technology, including the identification, use and incorporation of software components and tools.
- Identifying, eliciting and representing knowledge, with experience of building intelligent systems using existing tools.
- Transferable skills including problem identification and solution; and commercial awareness.

Attributes:

- Self motivated, organised and focused, able to cope with a complex diversity of knowledge and data and a range of tasks to engage with those sources.
- Ability to communicate with a wide range of people as the project will involve engagements with internals and externals, including other consultants and professional staff.
- Creative and innovative, able to identify novel ways of applying software approaches and to communicate these, implement and assess.

Experience:

- Sound understanding and practical experience of software design and development.
- Experience in working with teams of specialist and non-specialists.
- Experience of Intelligent Systems and Data Analytics and of applying intelligent techniques and approaches for software development.

Desirable

Qualifications, Skills and Experience

- A Masters in Data Science, Data Analytics, Intelligent User Interfaces or Advanced Software Engineering is highly desirable due to the complexity of the KTP project.
- Degree with modules on data analysis across all levels (L4-L6) and with an L6 project involving intelligent software artifact development.

- Experience through Intelligent Systems
- Data base development (e.g. SQL)
- Skills and capabilities in Business analytics and business process design
- Sound experience in managing process improvement/problem-solving in dynamic business operations environment

Date Completed:

February 2017