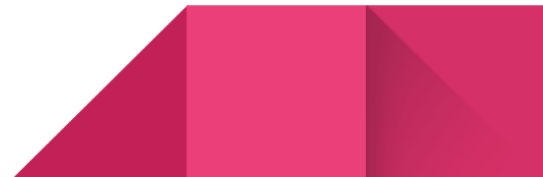# Software Engineer - Unified Software Project

KTP Associate - University of Sunderland & Unified Software Ltd

General Information

Job Title:	Software Engineer - KTP Associate
Salary:	£25,000 - £31,148
Faculty:	Computing
Department:	Enterprise and Innovation

The post is for a "KTP Associate", which is a well-established and very well supported position funded jointly by Innovate UK and the company through the Knowledge Transfer Partnerships (KTP) Programme scheme. The overall aim of the KTP scheme is to support UK industry to improve their competitiveness, productivity and performance, where the KTP Associate post plays a key role in achieving that aim.

Main Purpose

Unified Software specializes in payments processing and bank data validation solutions via own brand products: BankPay-WS Bacs payment and BankVal International validation of SWIFT BICs and IBANs gateways bring a new level of flexibility, scalability and cost

effectiveness to customers. Award winning (NE Business Awards 2008; The Journal Durham and Wearside Business Awards 2008; Sunderland Echo Portfolio 2008/2015) BankVal validation web service helps global businesses to improve the quality of their banking data and eliminate payment errors.

Unified Software's vision is to become a recognised leader in big data mining for fraud detection within the banking and financial industry by successfully utilising their expertise and resources of data validation to maximise the value of the Company and their commercial offerings.

The "Unified Software Project" marks the beginning of an exciting and challenging new journey for Unified. During ten year successful provision of services to the banking and financial sectors, Unified Software have identified major gaps in the market, including the potential to increase accuracy in fraudulent transaction detection. In covering this gap, Unified aim to significantly grow their business, providing sophisticated Know-Your-Customer services to enable clients to detect anomalous transactions. The Company's strategic aims will be met through the "Unified Software Project" by developing an Anomalous Financial Transaction Detection System applying intelligent data mining techniques that will confer Unified Software with the ability to create cutting-edge Know-Your-Customer fraud detection services within the financial validation industry.

The KTP Associate will work closely with the Company's Managing Directors in order to understand current processes and to optimise transition to the new business model. A knowledge repository system will be created to support learning and innovation.

Main Duties & Responsibilities

1. Complete the induction and relevant training.
2. Conduct daily work in accordance with the knowledge base, company and KTP handbooks and framework.
3. Comply with the knowledge base and company Health and safety policies.
4. Liaising with Company's staff of the company to understand and analyse operations and processes of the current business model and market requirements and opportunities.
5. Familiarisation at Unified Software, gaining understanding of payments processing and bank data validation.
6. Investigate Current Data Science and Big Data Mining / Manipulation Techniques which could be applied to create the desired Unified' Know-Your-Customer fraud detection product.
7. To create and develop the Ensemble Architecture and Commercially Viable Prototype.
8. Product Technical Design and Development.
9. Revise ensemble of mining algorithms.
10. Embed learning into knowledge base and company.
11. Complete a final project report and present project outcomes in relevant conferences or industry events.

12. Liaise with the University of Sunderland team in order to co-ordinate side projects to be undertaken within the two faculties.

This document outlines the duties required at the current time to indicate the level of responsibility, It is not a comprehensive or exhaustive list and may vary to include other reasonable requests as directed by University management which do not change the general character of the job or the level of responsibility entailed.

Salary and Conditions of Service

The salary is circa £25,000 to £31,148 depending upon qualifications and experience. The KTP Associate will be employed by the University but the KTP Associate will be located at Unified Software's facilities in eVolve Business Centre. This post is a fixed-term 2-year contract funded through a Knowledge Transfer Partnerships.