

## Service Computing for java/ dot net

Check following Projects ,also check if any spelling mistakes before showing to your Guide:

### **1. A Loosely Coupled Integration Environment for Collaborative Applications.**

In the computer-supported cooperative work domain, researchers have always wondered about which principles and models to adopt for the development of collaborative applications capable to really meet users' needs. However, these requirements are often unpredictable and depend on several task- or environment-related factors. Integrated collaborative environments are rarely open, extensible, and reconfigurable enough so as to meet these requirements. This paper presents an environment, called loosely coupled environment for integrating collaborative applications (LEICA), allowing the integration of existing collaborative applications. LEICA adopts a loosely coupled integration approach which is based on Web Services technology, an Event Notification System, and the definition of Collaboration Policies to control the interactions between integrated applications. LEICA allows different functionalities of existing applications to be dynamically combined and controlled, enhancing its flexibility. Through a case study, we show how LEICA was successfully used to integrate three collaborative applications: a Co-browsing tool, an instant messaging tool, and a Voice over Internet Protocol Conference Controller.

### **2. Addressing Dependability throughout the SOA Life Cycle.**

#### Synopsis:

Dependability should be considered throughout the phases of the SOA life cycle. This article proposes the application of a service level management approach to address dependability and presents dependability-related activities for every stage (Model, Assemble, Deploy, and Manage) of the SOA life cycle. Furthermore, we describe the concepts and the formalisms that are behind these activities. Following these activities service providers and aggregators can offer optimized levels of dependability from their existing services and thus better meet user requirements.

### **3. Automated Certification for Compliant Cloud-based Business Processes.**

#### Synopsis:

A key problem in the deployment of large-scale, reliable cloud computing concerns the difficulty to certify the compliance of business processes operating in the cloud. Standard audit procedures such as SAS-70 and SAS-117 are hard to conduct for cloud-based processes. The paper proposes a novel approach to certify the compliance of business processes with regulatory requirements. The approach translates process models into their corresponding Petri net representations and checks them against requirements also expressed in this formalism. Being based on Petri nets, the approach provides well-founded evidence on adherence and, in case of noncompliance, indicates the possible vulnerabilities.

## **4. Expert Discovery and Interactions in Mixed Service-Oriented Systems.**

### **Synopsis:**

Web-based collaborations and processes have become essential in today's business environments. Such processes typically span interactions between people and services across globally distributed companies. Web services and SOA are the defacto technology to implement compositions of humans and services. The increasing complexity of compositions and the distribution of people and services require adaptive and context-aware interaction models. To support complex interaction scenarios, we introduce a mixed service-oriented system composed of both human-provided and Software-Based Services (SBSs) interacting to perform joint activities or to solve emerging problems. However, competencies of people evolve over time, thereby requiring approaches for the automated management of actor skills, reputation, and trust. Discovering the right actor in mixed service-oriented systems is challenging due to scale and temporary nature of collaborations. We present a novel approach addressing the need for flexible involvement of experts and knowledge workers in distributed collaborations. We argue that the automated inference of trust between members is a key factor for successful collaborations. Instead of following a security perspective on trust, we focus on dynamic trust in collaborative networks. We discuss Human-Provided Services (HPSs) and an approach for managing user preferences and network structures. HPS allows experts to offer their skills and capabilities as services that can be requested on demand. Our main contributions center around a context-sensitive trust-based algorithm called ExpertHITS inspired by the concept of hubs and authorities in web-based environments. ExpertHITS takes trust-relations and link properties in social networks into account to estimate the reputation of users..

## **5. Extracting Product Features and Sentiments from Chinese Customer Reviews**

### **Synopsis:**

E-commerce, or business done on the Internet has become more and more popular. Meanwhile, the number of customer reviews for products on the internet grows rapidly. For a popular product, the

number of reviews can be in hundreds. As a result, the problem of “opinion mining” has seen increasing attention over several years. In this paper, we proposed a statistical method to extract product features from Chinese customer reviews. The method is based on distribution of a candidate word in different domains and within the certain domain. It also takes into account the unbalance size of different product reviews. Experimental results show that it achieves better performance than other methods.

## **6. Monitoring Service Systems from a Language-Action Perspective.**

### **Synopsis:**

Business processes are increasingly distributed and open, making them prone to failure. Monitoring is, therefore, an important concern not only for the processes themselves but also for the services that comprise these processes. We present a framework for multilevel monitoring of these service systems. It formalizes interaction protocols, policies, and commitments that account for standard and extended effects following the language-action perspective, and allows specification of goals and monitors at varied abstraction levels. We demonstrate how the framework can be implemented and evaluate it with multiple scenarios that include specifying and monitoring open-service policy commitments.

## **7. OWLPath: An OWL Ontology-Guided Query Editor.**

### **Synopsis:**

Most Semantic Web technology-based applications need users to have a deep background on the formal underpinnings of ontology languages and some basic skills in these technologies. Generally, only experts in the field meet these requirements. In this paper, we present OWLPath, a natural language-query editor guided by multilanguage OWL-formatted ontologies. This application allows nonexpert users to easily create SPARQL queries that can be issued over most existing ontology storage systems. Our approach is a fully fledged solution backed with a proof-of-concept implementation and the empirical results of two challenging use cases: one in the domain of e-finance and the other in e-tourism

## **8. Server-Side Streaming Processing of WS-Security.**

### **Synopsis:**

With SOAP-based web services leaving the stadium of being an explorative set of new technologies and entering the stage of mature and fundamental building blocks for service-driven business processes-and in some cases even for mission-critical systems-the demand for nonfunctional requirements including efficiency as well as security and

dependability commonly increases rapidly. Although web services are capable of coupling heterogeneous information systems in a flexible and cost-efficient way, the processing efficiency and robustness against certain attacks do not fulfill industry-strength requirements. In this paper, a comprehensive stream-based WS-Security processing system is introduced, which enables a more efficient processing in service computing and increases the robustness against different types of Denial-of-Service (DoS) attacks. The introduced engine is capable of processing all standard-conforming applications of WS-Security in a streaming manner. It can handle, e.g., any order, number, and nesting degree of signature and encryption operations, closing the gap toward more efficient and dependable web services.

## **9. Service-Centric Framework for a Digital Government Application.**

### **Synopsis:**

This paper presents a service-oriented digital government infrastructure focused on efficiently providing customized services to senior citizens. We designed and developed a Web Service Management System (WSMS), called WebSenior, which provides a service-centric framework to deliver government services to senior citizens. The proposed WSMS manages the entire life cycle of third-party web services. These act as proxies for real government services. Due to the specific requirements of our digital government application, we focus on the following key components of WebSenior: service composition, service optimization, and service privacy preservation. These components form the nucleus that achieves seamless cooperation among government agencies to provide prompt and customized services to senior citizens.

## **10. Service-Oriented Architecture for High-Dimensional Private Data Mashup.**

### **Synopsis:**

Mashup is a web technology that allows different service providers to flexibly integrate their expertise and to deliver highly customizable services to their customers. Data mashup is a special type of mashup application that aims at integrating data from multiple data providers depending on the user's request. However, integrating data from multiple sources brings about three challenges: 1) Simply joining multiple private data sets together would reveal the sensitive information to the other data providers. 2) The integrated (mashup) data could potentially sharpen the identification of individuals and, therefore, reveal their person-specific sensitive information that was not available before the mashup. 3) The mashup data from multiple sources often contain many data attributes. When enforcing a traditional

privacy model, such as K-anonymity, the high-dimensional data would suffer from the problem known as the curse of high dimensionality, resulting in useless data for further data analysis. In this paper, we study and resolve a privacy problem in a real-life mashup application for the online advertising industry in social networks, and propose a service-oriented architecture along with a privacy-preserving data mashup algorithm to address the aforementioned challenges. Experiments on real-life data suggest that our proposed architecture and algorithm is effective for simultaneously preserving both privacy and information utility on the mashup data. To the best of our knowledge, this is the first work that integrates high-dimensional data for mashup service.

## **11. Vulnerability Analysis in SOA-Based Business Processes.**

### **Synopsis:**

Business processes and services can more flexibly be combined when based upon standards. However, such flexible compositions practically always contain vulnerabilities, which imperil the security and dependability of processes. Vulnerability management tools require patterns to find or monitor vulnerabilities. Such patterns have to be derived from vulnerability types. Existing analysis methods such as attack trees and FMEA result in such types, yet require much experience and provide little guidance during the analysis. Our main contribution is ATLIST, a new vulnerability analysis method with improved transferability. Especially in service-oriented architectures, which employ a mix of established web technologies and SOA-specific standards, previously observed vulnerability types and variations thereof can be found. Therefore, we focus on the detection of known vulnerability types by leveraging previous vulnerability research. A further contribution in this respect is the, to the best of our knowledge, most comprehensive compilation of vulnerability information sources to date. We present the method to search for vulnerability types in SOA-based business processes and services. Also, we show how patterns can be derived from these types, so that tools can be employed. An additional contribution is a case study, in which we apply the new method to an SOA-based business process scenario.