



UNIVERSITY  
OF TRENTO - Italy

## Department of Information Engineering and Computer Science

The Knowdive group is looking for young top quality experts in software development

The University of Trento is a young and rapidly growing university located in Northern Italy in the middle of the Alps. In recent surveys, the university has repeatedly ranked among the best in the country for overall quality of its faculty, research and teaching. This is partly due to the local context, characterized by a series of new initiatives in Computer Science, Electronics and Telecommunications, committed support from the local government, and a quality of life among the top in Europe.

The Department of Information Engineering and Computer Science ("Dipartimento di Ingegneria e Scienza dell'Informazione") was created 6 years ago and now counts around 50 faculty members in three faculties (Science, Engineering and Economics). Despite its young age, the department is highly ranked with respect to publications, citations, and its capability to attract funding both from industry and international funding agencies (e.g., the European Commission).

For more details, see <http://www.disi.unitn.it>

We are looking for young top quality experts in software development interested in working, as part of a large team, on the research and development of a semantics-enabled knowledge and data management system. The work will be part of an ongoing multi-annual research project and will concentrate on the development of semantic file system exploiting advanced metadata management and on its integration with the network middleware. Key words describing the research area of interest are: semantic file system, metadata management, peer-to-peer systems, community building and development, semantics enabled peer-to-peer search.



Candidates must have 2-3 years of working experience in industrial settings. Skills and knowledge relevant to the open positions in the project are, in decreasing order of importance:

#### Position 1 (Web Application Developer)

- Excellent knowledge of XML, DOM, XHTML, DHTML, CSS, and JavaScript
- Experience with AJAX and web development
- Knowledge of features and peculiarities of modern browsers
- Experience with a client-side JavaScript framework. Experience with Dojo is recommended
- knowledge of OOP concepts and design patterns
- knowledge of Java 5.0 or higher
- Experience with a server-side Java framework. Spring MVC is recommended
- Knowledge of Visio and/or Flex for design prototyping. Knowledge of InDesign and/or Photoshop is a plus

#### Position 2 (Windows Application Developer)

- Good knowledge of OOP and C/C++
- Experience with Windows COM and shell extensions
- Good knowledge of the architecture of Windows especially of its part that interfaces with file system

#### Position 3 (System Developer)

- Good knowledge of C/C++
- Experience in the internals of Linux or FreeBSD
- Knowledge of drivers programming
- Knowledge of networking programming
- POSIX and other related standards is a plus
- FUSE programming experience is a plus
- Experience with Qt is a plus

#### Position 4 (Java Developer)

- Good knowledge of Java SE 5.0 or higher
- Good knowledge of OOP and design patterns
- Experience with JDBC and SQL

The ideal candidate for a position should have a proven track record of research, system design and development in some or in all the areas mentioned above. (S)he should be proactive, self-motivated, able to work independently and in a team. An interest in working on research and technology transfer projects in collaboration with a high tech start-up will constitute a plus. Knowledge of Italian is not needed.

The work will be developed within the Knowdive group (<http://dit.unitn.it/~knowdive/>), a large, multicultural and multidisciplinary group, which is part of the department of Information Engineering and Computer Science (<http://disi.unitn.it/welcome>). The department is a leading and fast-growing research institution, characterized by a young and international faculty and a large, international student population. Indicators for scientific production put the department among the very top in Europe. The successful candidate will therefore have the opportunity to work in a dynamic and exciting environment.

Trento (<http://disi.unitn.it/presentation/aboutUs/aboutTrento.xml>) is a small vibrant city (around 100K people), with a beautifully preserved historic center, situated in the middle of the Dolomites, consistently ranked at the top for quality of life. Also thanks to its fortunate location, Trento offers a wide variety of cultural and sports opportunities all year around, as well as excellent food and wine.

**Interested candidates should send their CV to Ilya Zaihrayeu ([ilya@disi.unitn.it](mailto:ilya@disi.unitn.it))**