Can Liu

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PROFILE

I am a Master student in RWTH Aachen University. I study Media Informatics and specialize in Human-computer Interaction. Currently, I am working on my Master thesis' project at the in|situ| lab in France. My thesis is co-supervised by Prof. Stéphane Hout at in|situ| and Prof. Jan Borchers at Media Computing Group in Germany.

EDUCATION

Sep. 2008 - Present	Media Informatics, RWTH Aachen University, Germany
Degree	Master of Science
GPA without thesis	Good
Thesis (Ongoing)	Mobile Augmented Note-taking to Support Operating Physical Devices
Sep. 2004 - Jun. 2008	Information Management and Information System, Mianyang Normal University, China
Degree	Bachelor of Management
GPA	83/100
Thesis	Family Financial Management Information System

PUBLICATIONS

Can Liu, Jonathan Diehl, Stéphane Hout, Jan Borchers. Mobile Augmented Note-taking to Support Operating Physical Devices. In Mobile HCI 2011 Workshop on Mobile Augmented Reality, 2011.

EMPLOYMENT

2011 Internship for Master thesis project - 6 months at in|situ| lab in INRIA, France
2010 Student assistant as Software developer, User Test Conductor, Gesture Designer, UI Designer - 8 months, 15h/w at Media Computing Group, RWTH Aachen University.
2009 Student assistant as Software developer - 6 months, 12h/w at Informatik 5 in RWTH Aachen University.

HCI PROJECTS

Mobile Augmented-Reality Note-taking **03/2011 - Present**

-Master thesis project at in|situ| INRIA, France

The goal of this project is to explore how augmented-reality techniques could support operating physical devices by using a "note-taking" approach. By taking AR notes, users can create associations between their memory or knowledge and physical devices. Our goal is to improve user experience by rich visualizations and the easy retrieval of demanded information.

Tangible Windows **07/2010 - 09/2010**

- Research project at the Media Computing Group, Germany

A Ubicomp Environment System which allows users to seamlessly transfer information among devices via a set of simple operations. The goal of the project is to explore the design space of a home or office environment, which is enriched with portable computerized windows of multiple sizes placed anywhere you want. We built a web-based prototype enabling inter-window interaction between different tablets. We designed and evaluated several window operations, e.g., copy and paste, and suggested a set of corresponding gestures.

-I designed the set of gestures and participated in the definition of the inter-window operations.

-I conducted two user studies: an exploratory study with 10 users to investigate the design of gestures and operations, and an experimental evaluation of our prototype with 12 users.

Aixplorer **04/2010 - 12/2010**

- Product & research project at the Media Computing Group, Germany

A tourist guide application running in the Town Hall of the city of Aachen. It recognizes which room the user is in, and provides the corresponding multimedia contents. (more info)

-I developed a Wifi signal visualization program to visualize real-time signals and compare them with recorded data.

-I improved the Wifi and GPS Tracking program for collecting Wifi and GPS data to train the SVM model.

-I participated in some early work of the next generation city-wide guide application. I did two user interviews for understanding users and initiated a questionnaire for a user study.

Dia-Care **11/2008 - 01/2009**

- Final project of "Design Interactive System" course in Media Computing Group, Germany

A prototype of a portable assistant for Diabetes patients. It consists of two parts: a "watch" worn on the arm for detecting health status and insulin injection, and a tablet for remote monitoring.

As a team of 4, we went through the design-implementation-analysis cycle in three iterations, conducted user interviews, user tests for evaluation, paper prototypes, and ended with a high-fidelity prototype implemented with Flash. Find the log of our design process here, including persona, scenarios, paper prototype and final prototype.

SEMINARS

- "Post-Desktop User interfaces" at the Media Computing Group

Wrote a research report on the state-of-art of the area "Height Display", in which "height" is used as a dimension to convey information. It refers to physical computing, tangible interface and haptic display.

- Tom Igoe's visiting week about Physical Computing and Sustainable Technology

Built electronic fun toys in the Arduino seminar, attended his talks.

SOFTWARE DEVELOPMENT

iNMV **10/2009 - 04/2010**

- *Research project at Informatik 5, RWTH Aachen University*

A mobile client of **"**Virtual Campfire", which is a framework to create, search and share multimedia artifacts with context awareness cross communities. On the proposed platform, users create and share "stories", which consist of videos and photos with semantic tags. (more info)

As a student assistant, I programmed on the iPhone client and submitted it in Apple store in the end.

iUConnect **01/2010 - 02/2010**

- *Final project of "iPhone Programming" course at the Media Computing Group*

As a team of 4, we built a location-based social network application on iPhone. Users use it to find othercommunicate with people in a configurable area close to themselves. They can publish their current status and profile, and contact other users directly via the application. (more info)

iBSCW Calendar **04/2009 - 07/2009**

- *Lab work in Fraunhofer FIT, Sankt Augustin*

As a team of 3, we built a collaborative calendar on iPhone, based on BSCW (Be Smart Cooperate Worldwide) work space. It was built to facilitate group communication such as meeting invitation and information sharing.

AJAX Application as an Interface for Wikipedia **07/2009 - 09/2009**

- *Final project of course "Basis Technologies for Web 2.0 Applications" in Bonn-Aachen International Center for IT*

As a team of 4, we built an AJAX application which presents an interface to access Wikipedia, using Java, JavaScript, and the Dojo toolkit.

Mobile Services **03/2009**

- *Lab work in Fraunhofer IAIS, Sankt Augustin*

As a team of 2, we developed a file-sharing program and a multi-player game on Nokia E90, which transfers data via Bluetooth. It was implemented on Python S60.

SKILLS

Programming languages:
Objective C, Java

Theoretical Knowledges:
Computer Graphics, Machine Learning, Network Technology

Development Platforms:
iPhone, Android, Mac OS

LANGUAGES
Fluent English, Medium German, Beginner French, Native Chinese

COMMUNITY INVOLVEMENT
Student Volunteer in Mobile HCI, 2009

REFERENCES

Prof. Dr. Jan Borchers **Head of Media Computing Group**
Email: borchers@cs.rwth-aachen.de Tel: +49 241 80-21050
Role: Advisor of ongoing Master thesis and former employer of student assistant job.

Prof. Stéphane Huot **Associate Professor at in|situ|, Univ. Paris Sud**
Email: huot@lri.fr Tel: +33 1691 54229
Role: Advisor of ongoing Master thesis project.