

Information technologist specialized in search engines and analytics who builds bridges across technologies, disciplines and between people

Personal Data

Gender	Male	Date of birth	July 20, 1982
Nationality	Dutch	Marital status	Single

Education

- 2007–2011 **Doctorate (PhD)**, *University of Amsterdam*, Amsterdam, the Netherlands.
Dissertation: System Evaluation of Archival Description and Access.
Worked on the evaluation of information retrieval for digital archives of the *National Archives of the Netherlands*. Designed and implemented retrieval algorithms and multiple front-ends of a search engine. Processed and analyzed log files to understand user search behavior and to evaluate the search engine.
- 2006–2007 **Master of Science**, *University of Amsterdam*, Amsterdam, the Netherlands.
Human Centered Multimedia (Information Studies).
Major: multimedia systems, including video search. Master's degree thesis based on joined work with researchers of the *National Research Institute for Mathematics and Computer Science* on the credibility of information sources in search engines; work published and presented at major international venues.
- 2002–2006 **Bachelor, Master of Arts**, *University of Groningen*, Groningen, the Netherlands.
Information Science, note: Master's degree with honors, cum laude.
Major: language technology. Worked for Master thesis with the University Library of Groningen to design and implement a Semantic Web system for their bibliographic catalogs. Work published and presented at international conferences.

Work Experience

- April 2017 – now **Sr. Search Engineer**, *Swisscom Directories AG*, Zürich, Switzerland.
End-to-end responsibility for designing, planning, implementation and testing search algorithms on local search (phone book, Yellow Pages, restaurants and other SMEs). Daily collaboration in creating search functionalities with a team of back-end engineers, product managers, user experience experts, designers and web developers.
- Nov 2014 – Mar 2017 **Sr. Search Engineer**, *LexisNexis*, Leiden, the Netherlands.
Technical lead on information retrieval, in particular design (infrastructure & application) and back-end development of search engines (e.g. ingestion of terabytes of data, query parsing, retrieval algorithms) for patent data in bibliographic form and in cross-language full-text.
Designed infrastructure topology for superior search efficiency, designed and implemented expert patent search functionality such as stemmed vs. non-stemmed search, proximity search, case-sensitive search, cross-language retrieval, document filtering based on document IDs, fields and user-generated content, advanced classification search, and patent family de-duplication algorithms.
◦ *Technologies used*: Java, Node.js, AngularJS, Python, Bash scripting, XSLT, Elasticsearch, OpenStack, MongoDB, RabbitMQ, Jenkins/Bamboo, Git, JIRA.
- Jan 2014 – Nov 2014 **Software Developer, Information Analyst, Technical Lead**, *Vancis Advanced ICT Services B.V.*, Amsterdam, the Netherlands.
Technical lead on software solutions for Cloud services. Business development for these services and introduction of new Cloud services, in particular Platform-as-a-Service (PaaS). Set up MoSCoW analyses for software solutions as part of RFIs and RFPs.
Identified business processes and KPIs by interviewing colleagues and extracting information from systems, storing and integrating different information streams for metering and billing of cloud services. Design, recommendation and implementation of changes with automation.
◦ *Technologies used*: Hadoop, OpenStack, OpenShift, Bash scripting, Perl, PHP, Python, jQuery, (My)SQL, SOAP, CLI-based APIs, UML, SVN, Git.

- Nov 2012 – **Information Specialist**, *NIOD Institute for War, Holocaust and Genocide Studies*, Royal Netherlands Academy of Arts and Sciences, Amsterdam, the Netherlands, 0.2 FTE.
 Dec 2013 Worked on the European Holocaust Research Infrastructure (EHRI) project, working with archivists and (international) IT specialists on a digital research environment for historians.
 ◦ *Technologies used*: Perl, JSON, XML, XSLT, Apache Solr, Git.
- Oct 2011 – Dec 2013 **Software Developer**, *Meertens Institute*, Royal Netherlands Academy of Arts and Sciences, Amsterdam, the Netherlands.
 Design and development of advanced search engines and user interfaces for a plethora of complex and large amounts of structured data (i.e. Dublin Core, TEI, WSDL, DIDL, custom markup) for scientists. I delivered software to provide digital access to historical editorial cartoons in newspapers.
 ◦ *Technologies used*: Apache Solr, PHP, Perl, jQuery, XML, XSLT, Bash scripting, SQL, R, SVN.
- Aug. 2011 – **Consultant**, *VLC Projects B.V.*, Amsterdam, the Netherlands.
 Sept. 2011 Developed ideas on enterprise search and worked on technical solutions. Worked on content management in Alfresco and Drupal. Gave trainings and did presentations.
- Oct. 2007 – **Lecturer**, *University of Amsterdam*, Amsterdam, the Netherlands, 0.25 FTE.
 June 2011 Independently teaching the course “Representation and Retrieval” – mainly on using XML for describing, presenting, and gaining access to personal document collections, including preparing slides, giving lectures, supervising and grading course work.
- July 2007 – **Junior Researcher**, *University of Amsterdam*, Amsterdam, the Netherlands, 0.75 FTE.
 June 2011 Member of the Retrieving Encoded Archival Descriptions More Effectively (README) project funded by the Netherlands Organisation for Scientific Research (NWO), which resulted in numerous publications and presentations at large international conferences.
 ◦ *Technologies used*: XML databases, Lucene, Indri, Perl, SPSS, Bash scripting, L^AT_EX en BibT_EX.
- Feb. 2006 – **Intern**, *University Library Groningen*, Groningen, the Netherlands.
 July 2006 Worked on the development of a Semantic Web system based on bibliographic information stored in MARC21 records at the Digital Library department.
 ◦ *Technologies used*: XML, XSLT, Perl, Protégé, Sesame, SeRQL.

Professional and Technical Skills

Research	Experienced with quantitative and qualitative research following the scientific method, including experimental user studies, reporting on and presenting the results in scientific articles and at major international conferences.	Application Stack	Experienced with working in Linux; use of Microsoft Office products; crafting production-ready search engines with user-friendly graphical interfaces in Lucene/Solr/Elasticsearch; comfortable with working with SOAP, RESTful services, Web and CLI-based APIs and libraries.
Coding and Programming	Java, Python, Perl, PHP, Bash scripting, R, Javascript, XSL, XQuery, SQL, L ^A T _E X.	Other	European driving license B.

Natural Languages

Dutch	Fluent, both oral and in writing.	German	Limited working proficiency.
English	Fluent, both oral and in writing.	Chinese	Limited working proficiency.

Grants and Awards

- *Association for Computers in the Humanities* (ACH) Young Scholar bursary in 2008; \$1000.
- *European Conference on Digital Libraries* (ECDL) Student Scholarship in 2009; €360.
- *e-Humanities* grant in 2012 by the Netherlands Academy of Arts and Sciences to work on access to historical editorial cartoons in newspapers; €30K
- *Reed Tech Innovation Award 2016* for innovative contributions to project Summit and the subsequent commercial release of TotalPatent One; handed out one time per year to an employee.

Miscellaneous

- Hobbies: movies, making sushi, traveling.
- Interested in cultural heritage (storytelling, identity), history and science fiction.
- Additional information with descriptions of my completed projects, selected publications, and recommendations can be found on my LinkedIn profile: nl.linkedin.com/in/juntezhang.