Manuel **Valle Torre**

MSc Computer Science · Data Science and Technology

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> *Interested in Data Engineering, Analysis and Science, constantly exploring and implementing methods and tools to work with data and learn from it. Currently doing that as a Research Engineer at the Web Information Systems (**WIS**) group and the Centre for Education and Learning (**CEL**), part of the Delft University of Technology*

Work experience

Web Information Systems / Centre for Education and Learning - TU Delft   *Delft, Netherlands*
RESEARCH ENGINEER   *Jan. 2019 - Today*

– Developed the edX Log file Analysis Tool (ELAT) 🔗, a web-based tool to process edX log files into a structured database. Then collaborated with CEL to evaluate and adapt ELAT for research in learning and education, published in LAK20
– Built an ETL pipeline to calculate daily students' indicators for a dashboard in Coursera, for a study with CEL to be published in LAK21
– Created and edited learning materials as Jupyter Notebooks for the Digital Skills Project, a basic Python course for TU Delft students
– Implemented highlighting and note-taking modules in SearchX, an open source search system for research, part of a study with WIS to be published in CHIIR21

Web Information Systems - TU Delft   *Delft, Netherlands*
RESEARCH ENGINEER   *Feb. 2018 - Jan. 2019*

– Participated in data collection, analysis, experiment design and implementation for research projects with a focus in Web Data, User-Generated Content and Natural Language Processing
– Collaborated in the process of design and development of teaching material (lectures, labs and exams) for the CSE1500 course 🔗 in Database Technology for the Bachelor in Computer Science

VR TECH   *San Luis Potosí, México*
PROJECT MANAGER   *Mar. 2015 - Jul. 2015*

– Supervised and participated in testing, training and implementation of a custom information system for the Property Records Office of the San Luis Potosí State Government
– Designed the documentation and training for users of said information system

Education

Delft University of Technology   *Delft, Netherlands*
MASTER OF SCIENCE IN COMPUTER SCIENCE - DATA SCIENCE & TECHNOLOGY, GPA: 7.7/10   *Sep. 2015 - Jan. 2018*

– Project-based programme with a strong focus on science and the behavior of users in the Web, with subjects such as Data Management and Analytics, Experiment Design, Web Information Systems, Web Science Engineering

MASTER THESIS PROJECT, GRADE: 8/10   *Jan. 2017 - Jan. 2018*

– Supervision: Christoph Lofi - Web Information Systems Group, Computer Science
– Shared Perspectives for Query by Example in E-Commerce Systems 🔗
     Introduced multiple representations per item for personalized perception-based search
– Method: Concept extraction from textual movie reviews from Amazon, analyzed using vector embeddings (word2vec) and clustering for user exploration

Monterrey Institute of Technology and Higher Education   *San Luis Potosí, México*
BACHELOR OF SCIENCE IN BUSINESS INFORMATICS, GPA: 9.2/10   *Aug 2010 - Feb 2015*

– Combination of Engineering, Information Technologies and Management seeking to leverage technology applications and best practices for business understanding and improvement

Polytechnic University of Catalonia   *Barcelona, Spain*
EXCHANGE SEMESTER: MASTER IN TELECOMMUNICATIONS ENGINEERING AND MANAGEMENT   *Jan 2012 - Jun 2012*

– Telecommunications and Systems Management with a focus on enterprise processes

Skills

Proficient	PYTHON, Data Analytics, SQL, JAVASCRIPT, Spanish, English
Intermediate	Data Visualization, Machine Learning, MONGODB, NEO4J, R, Experiment Design, Linux, DOCKER Web Development (REACT, FLASK, NGINX)
Basic	Deep Learning (TENSORFLOW), ELASTICSEARCH, TABLEAU, JAVA

Publications

Delft University of Technology *Delft, Netherlands*

Web Information Systems (Lambda) - Centre for Education and Learning *Jan. 2019 - Today*

– *The Quantum of Choice: How learners' feedback monitoring decisions, goals and self-regulated learning skills are related*. Ioana Jivet, Jacqueline Wong, Maren Scheffel, Manuel Valle Torre, Marcus Specht and Hendrik Drachsler (accepted at LAK 2021)
– *How Do Active Reading Strategies Affect Learning Outcomes in Web Search?*. Nirmal Roy, Manuel Valle Torre, Ujwal Gadiraju, David Maxwell and Claudia Hauff (accepted at ECIR 2021)
– *Note the Highlight: Incorporating Active Reading Tools for Search As Learning*. Nirmal Roy, Manuel Valle Torre, Ujwal Gadiraju, David Maxwell and Claudia Hauff (accepted at CHIIR 2021)
– *EdX log data analysis made easy: Introducing ELAT: An open-source, privacy-aware and browser-based edX log data analysis tool*. Manuel Valle Torre, Esther Tan, Claudia Hauff (LAK2020) ⬀

Delft University of Technology *Delft, Netherlands*

Web Information Systems (Delta) *Feb. 2018 - Jan. 2019*

– *Training Data Augmentation for Detecting Adverse Drug Reactions in User-Generated Content*. Sepideh Mesbah, Jie Yang, Robert-Jan Sips, Manuel Valle Torre, Christoph Lofi, Alessandro Bozzon, Geert-Jan Houben (EMNLP2019) ⬀
– *TSE-NER: An Iterative Approach for Long-Tail Entity Extraction in Scientific Publications*. Sepideh Mesbah, Christoph Lofi, Manuel Valle Torre, Alessandro Bozzon, Geert-Jan Houben (ISWC2018) ⬀
– *Concept Focus: Semantic Meta-Data For Describing MOOC Content*. Sepideh Mesbah, Guanliang Chen, Manuel Valle Torre, Alessandro Bozzon, Christoph Lofi, Geert-Jan Houben (EC-TEL2018) ⬀
– *Perceptual Relational Attributes: Navigating and Discovering Shared Perspectives from User-Generated Reviews*. Manuel Valle Torre, Mengmeng Ye, Christoph Lofi (BTW2019) ⬀

Delft University of Technology *Delft, Netherlands*

Web Information Systems (Lambda) - Centre for Education and Learning *Jan. 2019 - Today*