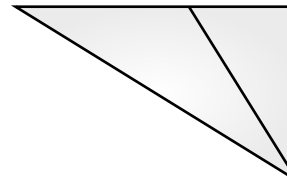


Curriculum Vitae

Florian Leitner, PhD

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Personal Profile and Expertise

- Content analyses based on information retrieval and extraction.
 - Applied machine learning for data and text mining.
 - Specialization on molecular biology and bioinformatics.
 - Distributed web services, computing, and web development expert.
 - Excellent communication, planning, and organization skills in English, German, and Spanish.
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Professional Career Summary

Juan de la Cierva Fellowship, Technical University of Madrid (UPM), Madrid, Spain

since Apr. 2014 • Prof. Pedro Larrañaga

- Development of text mining/information extraction systems for neurobiology
- Applied machine learning and Bayesian networks

Post-doc, National Cancer Research Centre (CNIO), Madrid, Spain

Mar. 2013 - Feb. 2013 • Prof. Alfonso Valencia Herrera

- Co-organization and evaluation of international scientific community challenges on information extraction for molecular biology: www.biocreative.org (BioCreative IV: ChemDNER - chemical entities).
- Development of text mining/information extraction pipeline for transcription regulation interactions.

PhD Student, National Cancer Research Centre (CNIO), Madrid, Spain

Aug. 2006 - Feb. 2013 (defense: 1st of March, 2012) • Prof. Alfonso Valencia Herrera

- Co-organization and evaluation of three international scientific community challenges on information extraction for molecular biology: BioCreative II and III, and acting main organizer of BioCreative II.5 (www.biocreative.org).
- Developed the first distributed meta-service for natural language processing in biology, the BioCreative Meta-Server (Python and JavaScript; placed third in the 2009 ICWS Services Cup after submissions from IBM and SAP).

MSc Student, Institute for Molecular Pathology (IMP), Vienna, Austria

Jul. 2003 - Jul. 2006 • Prof. Frank Eisenhaber (now director of the A*STAR Bioinformatics Institute, Singapore)

- Data acquisition and import from biological resources (parser development) and data visualization (on Apache/Struts) for an in-house bioinformatics framework ("Annotator").
- Data indexing and query interface for the Annotator framework with Lucene.

Developer, CSO Lanifex GmbH., Vienna, Austria

Mar. 2003 - Jun. 2003 • Paul Gillingwater, MBA (now CEO of Anagram Media e.U., U.S.A.)

- Development of a specialized VPN network for the Austrian National Bank (particular contributions: Linux kernel modifications and adapting the Mozilla framework as a GUI for the thin client devices).
- Contributions to the Vienna United Nations HQ intranet framework (MySQL, PHP).

Visiting Student, European Media Labs (EML), Heidelberg, Germany

Jul. 2002 - Feb. 2003 • Rebecca Wade, PhD

- Development of a visualization plugin for annotations of protein structures (Java).
- Installation and configuration of Python libraries for structural biocomputing.

Undergraduate Student, Novartis Research Institute, Vienna, Austria

Jul. 2001 - Jun. 2002 • Markus Jaritz, PhD (now head of the GEN-AU Bioinformatics Division, Austria)

- Development of a Perl-based framework for Bioinformatics (Non-Disclosure Agreement).

Product/Marketing Manager, ProDesign, Natters bei Innsbruck, Austria

Sep. 1997 - Jul. 2000 • Herbert Hofbauer, CEO

- International production (China, Israel, South Korea) and sales management for a Tyrolean paraglider producer.
- Organization of marketing (sports) events and advertisements.
- Contributions to the in-house production/warehouse management tool (VisualBasic).

Executive Manager, Leitner Siebdruck, Völs bei Innsbruck, Austria

Jul. 1996 - Aug. 1997 • Harald Leitner, CEO

- Production and sales management for a Tyrolean printing company.
- Calculations, offers, and bids on tenders for commercial signs, markings, and advertisements.
- Human resource management.

Selected IT Experience

- ▶ Over a decade of professional work with POSIX shells (UNIX, Linux, BSD, Cygwin, Solaris).
 - ▶ Performing content analyses with Tika, UIMA, GATE, NLTK, and LingPipe.
 - ▶ Machine learning with Mahout, SciPy/SciKit-Learn, R, Orange, and several specialized C/Fortran math libraries.
 - ▶ Indexing Big Data with Lucene/Solr, Sphinx, and Xapian.
 - ▶ Distributed computing experience with OpenMP and the Hadoop stack.
 - ▶ Designing asynchronous message passing interfaces with ZeroMQ and RabbitMQ.
 - ▶ Data management skills with PostgreSQL, CouchDB, MongoDB, Cassandra, and HBase.
 - ▶ Web development expertise with Apache/Struts, Django, Rails, and Node.js.
 - ▶ Programming languages (with good expertise, in order): Python, Java, C/C++, Scala, R, SQL.
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Academic Titles

March 2012 - PhD, Molecular Biology, with distinction
Autonomous University of Madrid (UAM), Spain

July 2006 - MSc, Molecular Biology, with distinction
Vienna University, Austria

First-author Publications

1. Leitner, F., Chatr-aryamontri, A., Mardis, S. A., Ceol, A., Krallinger, M., Licata, L., Hirschman, L., Cesareni, G. & Valencia, A.
The FEBS Letters/BioCreative II.5 experiment: making biological information accessible
Nature Biotechnology, 28(9), pp. 897–9, 2010
 2. Leitner, F., Krallinger, M., Cesareni, G. & Valencia, A.
The FEBS Letters SDA corpus: a collection of protein interaction articles with high quality annotations for the BioCreative II.5 online challenge and the text mining community
FEBS Letters, 584(19), pp. 4129–30, 2010
 3. Leitner, F., Mardis, S. A., Krallinger, M., Cesareni, G., Hirschman, L. A. & Valencia, A.
An overview of BioCreative II.5
IEEE/ACM Trans Comput Biol Bioinform, 7(3), pp. 385–99, 2010
 4. Leitner, F., Krallinger, M., Rodriguez-Penagos, C., Hakenberg, J., Plake, C., Kuo, C.-J., Hsu, C.-N., Tsai, R. T.-H., Hung, H.-C., Lau, W. W., Johnson, C. A., Saetre, R., Yoshida, K., Chen, Y. H., Kim, S., Shin, S.-Y., Zhang, B.-T., Baumgartner, Jr, W. A., Hunter, L., Haddow, B., Matthews, M., Wang, X., Ruch, P., Ehrler, F., Ozgür, A., Erkan, G., Radev, D. R., Krauthammer, M., Luong, T., Hoffmann, R., Sander, C. & Valencia, A.
Introducing meta-services for biomedical information extraction
Genome Biology, 9 Suppl 2, S6, 2008
 5. Leitner, F. & Valencia, A.
A text-mining perspective on the requirements for electronically annotated abstracts
FEBS Letters, 582(8), pp. 1178–81, 2008
-

Other Accomplishments

- 2014 Stanford Online Machine Learning Course
completed with 100+/100 total score
- 2012 Programa Integral de Lectura Madrid (a 6 months long speed reading course in Spanish)
accredited final reading speed: 2000 words/minute
- 2012 Stanford Online Natural Language Processing Course
completed with 88.3/100 total score
- 2009 IEEE Services-I World Conference “Services Cup”
3rd place behind competitors from SAP and IBM

Presentations and first author proceedings*

1. **From the BioCreative challenges to transcription regulation network extraction**
Institute of Computational Linguistics, Invited talk @ UZH Zurich, 2014, Zurich, Switzerland
 2. **Retracing Transcription Regulation Networks**
CNIO Progress Reports, February 2014, Madrid, Spain
 3. **Mining cis-Regulatory Transcription Networks from Literature***
BioLINK @ ISMB/ECCB, 2013, Berlin, Germany
 4. **Integration across genomics and medicine**
Panel discussion, BioLINK @ ISMB/ECCB, 2011, Vienna, Austria
 5. **Annotating scientific manuscripts and the role of text-mining**
Invited talk @ FEBS J Board Meeting, 2010, Cambridge, UK
 6. **Making biological information accessible**
CNIO Progress Reports, June 2010, Madrid, Spain
 7. **On interoperability in text mining***
BioCreative III Workshop, 2010, Bethesda, USA
 8. **The BioCreative II.5 evaluation results***
BioCreative II.5 Workshop, 2009, Madrid, Spain
 9. **The BCMS in the challenge and as a collaborative platform***
BioCreative II.5 Workshop, 2009, Madrid, Spain
 10. **Comparative community assessments for applied biomedical text mining - BioCreative II challenge and meta-services***
ISMB/ECCB, 2009, Stockholm, Sweden
 11. **The BioCreative II.5 online challenge***
BioLINK @ ISMB/ECCB, 2009, Stockholm, Sweden
 12. **The BioCreative Meta-Server platform***
SMBM, 2008, Turku, Finland
 13. **The interaction pair & interaction method sub-tasks evaluation***
BioCreative II Workshop, 2007, Madrid, Spain
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Co-author Publications

1. Comeau, D. C., R. Islamaj Dogan, P. Ciccarese, K. B. Cohen, M. Krallinger, F. Leitner, ... & W. Wilbur
BioC: A Minimalist Approach to Interoperability for Biomedical Text Processing.
Database, bat064, 2013
2. Salgado D., Krallinger M., Depaule M., Drula E., Tendulkar A., Leitner F., Valencia A., Marcelle C.
MyMiner: a web application for computer-assisted biocuration and text annotation.
Bioinformatics, bts435, 2012
3. Krallinger, M., Leitner, F., Vazquez, M., Salgado, D., Marcelle, C., Tyers, M., Valencia, A., Chatr-aryamontri, A.
How to link ontologies and protein-protein interactions to literature: text-mining approaches and the BioCreative experience
Database, bas017, 2012
4. Krallinger, M., Vazquez, M., Leitner, F., Salgado, D., Chatr-Aryamontri, A., Winter, A., ... & Valencia, A.
The protein-protein interaction tasks of BioCreative III: classification/ranking of articles and linking bio-ontology concepts to full text
BMC Bioinformatics, 12(Suppl 8), S3, 2011
5. Vazquez, M., Krallinger, M., Leitner, F. & Valencia, A.
Text mining for drugs and chemical compounds: methods, tools and applications
Molecular Informatics, 30(6-7), pp. 506-519, 2011
6. Krallinger, M., Tendulkar, A., Leitner, F., Chatr-aryamontri, A. & Valencia, A.
The PPI affix dictionary (PPIAD) and biomethod lexicon: importance of affixes and tags for recognition of entity mentions and experimental protein interactions
BMC Bioinformatics, 11(Suppl 5), O1, 2010

7. Krallinger, M., Leitner, F., Rodriguez-Penagos, C. & Valencia, A.
Overview of the protein-protein interaction annotation extraction task of BioCreative II
Genome Biology, 9(Suppl 2), S4, 2008
 8. Krallinger, M., Morgan, A., Smith, L., Leitner, F., Tanabe, L., Wilbur, J., Hirschman, L. & Valencia, A.
Evaluation of text-mining systems for biology: overview of the second BioCreative community challenge
Genome Biology, 9(Suppl 2), S1, 2008
 9. Gabdoulline, R.R., Hoffmann, R., Leitner, F. & Wade, R. C.
ProSAT: functional annotation of protein 3D structures
Bioinformatics, 19 (13), p. 1723, 2003
-

Conference Proceedings (see Presentations for First Author Proceedings)

1. Krallinger, M., Leitner, F., Rabal, O., Vazquez, M., Oyarzabal, J. & Valencia A.
Overview of the chemical compound and drug name recognition (CHEMDNER) task
Proceedings of the BioCreative IV Challenge Evaluation Workshop, pp. 2-32, 2013
 2. Krallinger, M., Leitner, F. & Valencia A.
Retrieval and Discovery of Cell Cycle Literature and Proteins by Means of Machine Learning, Text Mining and Network Analysis
8th Internat. Conf. on Practical Applications of Computat. Biology & Bioinformatics (PACBB 2014), pp. 285-292
 3. Krallinger, M., Vazquez, M., Leitner, F. & Valencia A.
Results of the BioCreative III (Interaction) Article Classification Task.
Proceedings of the BioCreative III Challenge Evaluation Workshop, pp. 17-23, 2010
 4. Krallinger, M., Vazquez, M., Leitner, F. & Valencia A.
Results of the BioCreative III Interaction Method Task.
Proceedings of the BioCreative III Challenge Evaluation Workshop, pp. 9-16, 2010
 5. Starlinger, J., Leitner, F., Valencia, A. & Leser, U.
SOA-based integration of text mining services
2009 World Conference on Services (IEEE SERVICES), pp. 99-106, 2009
 6. Krallinger, M., Leitner, F. & Valencia, A.
Assessment of the second BioCreative PPI task: automatic extraction of protein-protein interactions
Proceedings of the second BioCreative Challenge Evaluation Workshop, pp. 41-54, 2007
 7. Krallinger, M., Rodriguez-Penagos, C., Leitner, F. & Valencia, A.
Exploiting text mining of biological annotations to extract protein interactions for the Semantic web.
Seventh Intl. Workshop on Network Tools and Applications in Biology (NETTAB), pp. 47-53, 2007
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Book Chapters

1. Leitner, F., Krallinger, M. & Alfonso, V.; Editors: Dubitzky, W., Wolkenhauer, O., Cho, K.-H. & Yokota, H.
BioCreative II.5 and the FEBS Letters Experiment on Structured Digital Abstracts.
Encyclopedia of Systems Biology, Springer New York, pp. 101–106, 2013
2. Leitner, F., Krallinger, M. & Alfonso, V.; Editors: Dubitzky, W., Wolkenhauer, O., Cho, K.-H. & Yokota, H.
BioCreative Meta-Server and Text-Mining Interoperability Standard.
Encyclopedia of Systems Biology, Springer New York, pp. 106–110, 2013
3. Krallinger, R., Leitner, F. & Valencia, A.; Editor: Matthiesen, R.
Analysis of Biological Processes and Diseases Using Text Mining Approaches
Bioinformatics Methods in Clinical Research, Methods in Molecular Biology 593, pp. 341-382, 2010
4. Leitner, F., Hoffmann, R. & Valencia, A.; Editor: Krawetz, S.
Biological Knowledge Extraction
Bioinformatics for Systems Biology, Part V, pp. 413-433, 2009