

Guangyuan Piao

RESEARCH SCIENTIST

Bell Labs, Clyde House, Business and Technology Park, Blanchardstown, Dublin, Ireland

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"A man is not old as long as he is seeking something. A man is not old until regrets take the place of dreams"

Skills

| | |
|-------------------------|---|
| Machine Learning | Tensorflow, Weka, Mahout, MyMediaLite |
| Programming | Python, JAVA, JavaScript, CSS3, HTML5 |
| Languages | Chinese, Korean, English |
| Certificates | SCJP (SUN), Database Development Engineer (IIAA), Senior Software Development Engineer (IIAA) |
| Others | SQL, SPARQL, RDF, OWL, Linux, Windows Server |

Education

Insight Centre for Data Analytics (DERI), National University of Ireland Galway

Galway, Ireland

PH.D CANDIDATE IN ENGINEERING AND INFORMATICS (GPA: A)

Jul. 2014 - Jul. 2018

- Thesis: Semantics-Aware User Modeling and Recommender Systems in Microblogging Social Networks
- Committee: John G. Breslin (Supervisor), Harith Alani (External) and Dietrich Rebholz-Schuhmann (Internal)

7th Lisbon Deep Learning School (LxMLS)

Lisbon, Portugal

DEEP LEARNING, NATURAL LANGUAGE PROCESSING

Jul. 2017

Yonsei University

Seoul, S. Korea

MASTER IN INFORMATION AND INDUSTRIAL ENGINEERING (GPA: 4.15/4.3)

Mar. 2010 - Feb. 2012

- Thesis: Ontology-based Optimization Modeling for Distributed and ad-hoc Business Problems using SWCL
- Committee: Wooju Kim (Supervisor), June S. Hong (External) and Changouk Kim

Jilin University

Jilin, China

BACHELOR IN COMPUTER SCIENCE

Sep. 2005 - Jul. 2009

Experience

Nokia Bell Labs

Dublin, Ireland

RESEARCH SCIENTIST

Sep. 2018 - Present

Insight Centre for Data Analytics

Galway, Ireland

PH.D RESEARCHER

Jul. 2014 - Jul. 2018

- Contributed to the SIOC Core Ontology Specification: <http://rdfs.org/sioc/spec/>
- Contributed to the Schema.org Course Extension: <https://goo.gl/9j1JxZ>

National University of Ireland Galway

Galway, Ireland

TEACHING ASSISTANT (OBJECT-ORIENTED PROGRAMMING)

Sep. 2015 - Nov. 2015

Hyundai Mobis

Seoul, S. Korea

IT ADMINISTRATIVE ASSISTANT

Oct. 2011 - Apr. 2014

- IT project management in-house business and security systems used by over **20,000** employees.
- Managed Systems: SecurityUSB, FTS (File Transfer System), AD (Active Directory), DRM (Digital Right Management), SEP, CF (Content Filter), NAC (Network Access Control), DLP (Data Loss Protection) Management etc.
- Projects: ARS Authentication Improvement (2013) Database Access Control System Implementation (2013)
M-Books - Toward Paperless Working Environment (2012) NAC Replication for **18** overseas subsidiaries (2012)

SmartWeb Lab, Yonsei University

RESEARCH MASTER

Seoul, S.Korea

Mar. 2010 - Feb. 2012

- Designed a combined neural network model which incorporates FFT (Fast Fourier Transform) for sensing, and detects and discriminates sound signals to classify the sound label (e.g., human, vehicle, etc.) in the context of a security application.

Yonsei University

TEACHING ASSISTANT (SEMANTIC WEB FOR BUSINESS)

Seoul, S.Korea

Sep. 2011 - Oct. 2011

BitDot Lab

WEB APP DEVELOPER

Seoul, S.Korea

Aug. 2010 - Feb. 2011

- Developed the first iPad magazine in South Korea – “Episode 1st Edition”. **Ranked top** in the iOS App Store of South Korea.

<http://trade.bizforms.co.kr> & <http://www.transguy.co.kr>

Seoul, S.Korea

FREELANCE TRANSLATOR & PROGRAMMER

Jun. 2010 - Jun. 2011

- One of the best rated freelance translator (English, Korean, Chinese) and programmer (mainly JAVA and JSP)

Yanbian University of Science and Technology

TEACHING ASSISTANT (SOLUTION SPECIALIST TRAINING COURSES: JAVA, J2EE DEVELOPMENT, DATABASE, SWING)

Yanji, China

Jun. 2009 - Feb. 2010

Honors & Awards

INTERNATIONAL

- | | | |
|------|---|------------------|
| 2018 | 1st Place , Semantic Sentiment Analysis Challenge at ESWC (SSA@ESWC) | Crete, Greece |
| 2018 | Best Paper Award , The 1st Workshop on Deep Learning for Knowledge Graphs at ESWC (DL4GK@ESWC) | Crete, Greece |
| 2016 | Best Paper Award , The 12th International Conference on Semantic Systems (SEMANTICS) | Leipzig, Germany |
| 2016 | Finalist , 31st ACM SAC Student Research Competition (sponsored by Microsoft) | Pisa, Italy |
| 2015 | 4th Place , Data Challenge on “Entity Type Prediction over Linked Data” (followed by PKU, THU, and Fujitsu R&D) at the 5th Joint International Semantic Technology Conference (JIST) | Yi Chang, China |
| 2015 | Best Paper Candidates , The 5th Joint International Semantic Technology Conference (JIST) | Yi Chang, China |

Program Committees/Reviewers

- ISWC (2017, 2018), ESWC (2017), EdRecSys@WI (2016), Cognitive Systems Research

Publications (Google Scholar)

PAPERS

- G. Piao** and J. G. Breslin, “Domain-Aware Sentiment Classification with GRUs and CNNs” [**1st Place**]. The Semantic Sentiment Analysis challenge at the 15th Extended Semantic (ESWC), Crete, Greece, 06/2018
- G. Piao** and J. G. Breslin, “Learning to Rank Tweets with Author-based Long Short-Term Memory Networks”. The 18th International Conference on Web Engineering (ICWE), Caceres, Spain, 06/2018
- G. Piao** and J. G. Breslin, “A Study of the Similarities of Entity Embeddings Learned from Different Aspects of a Knowledge Base for Item Recommendations” [**Best Paper Award**]. The 1st Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies at the 15th Extended Semantic Web Conference (ESWC), Crete, Greece, 06/2018
- G. Piao** and J. G. Breslin, “Learning to Rank Tweets with Author-based Long Short-Term Memory Networks”. The 18th International Conference on Web Engineering (ICWE), Caceres, Spain, 06/2018
- G. Piao** and J. G. Breslin, “Inferring User Interests in Microblogging Social Networks: A Survey”. <https://arxiv.org/abs/1712.07691>. User Modeling and User-Adapted Interaction (UMUAI, IF:2.3), 2018
- G. Piao** and J. G. Breslin, “Transfer Learning via A Co-Factorization Model for Item Recommendations and Knowledge Graph Completion in Item Related Domains”. The 15th Extended Semantic Web Conference (ESWC), Crete, Greece, 06/2018
- G. Piao** and J. G. Breslin, “Financial Aspect and Sentiment Predictions with Deep Neural Networks: An Ensemble Approach”. Financial Opinion Mining and Question Answering Workshop at The Web Conference (WWW), Lyon, France, 04/2018
- G. Piao** and J. G. Breslin, “Factorization Machines Leveraging Lightweight Linked Open Data-enabled Features for Top-N Recommendations”. The 18th International Conference on Web Information Systems Engineering (WISE, 25% acceptance rate), Moscow, Russia,

07/10/2017

- **G. Piao** and J. G. Breslin, “*Leveraging Followee List Memberships for Inferring User Interests for Passive Users on Twitter*”. The 28th ACM Conference on Hypertext and Social Media (**Hypertext**, **27% acceptance rate**), Prague, Czech Republic, 04/07/2017
- **G. Piao** and J. G. Breslin, “*Inferring User Interests for Passive Users on Twitter by Leveraging Followee Biographies*”. The 39th European Conference on Information Retrieval (**ECIR**, **26.7% acceptance rate**), Aberdeen, UK, 08/04/2017
- **G. Piao** and J. G. Breslin, “*Interest Representation, Enrichment, Dynamics, and Propagation: A Study of the Synergistic Effect of Different User Modeling Dimensions for Personalized Recommendations on Twitter*”. The 20th International Conference on Knowledge Engineering and Knowledge Management (**EKAU**, **17.3% acceptance rate for long presentations**), Bologna, Italy, 19/11/2016
- **G. Piao** and J. G. Breslin, “*User Modeling on Twitter with WordNet Synsets and DBpedia Concepts for Personalized Recommendations*”. The 25th ACM International Conference on Information and Knowledge Management (**CIKM**, **23.5% acceptance rate**), Indianapolis, USA, 24/10/2016
- **G. Piao** and J. G. Breslin, “*Exploring Dynamics and Semantics of User Interests for User Modeling on Twitter for Link Recommendations*” [**Best Paper Award**]. The 12th International Conference on Semantic Systems (**SEMANTICS**, **21% acceptance rate**), Leipzig, Germany, 12/09/2016
- **G. Piao**, “*Towards Comprehensive User Modeling on the Social Web for Personalized Recommendations*”. The Doctoral Consortium at the 24th Conference on User Modeling, Adaptation and Personalization (**UMAP**), Halifax, Canada, 13/07/2016
- **G. Piao** and J. G. Breslin, “*Analyzing Aggregated Semantics-enabled User Modeling on Google+ and Twitter for Personalized Link Recommendations*”. The 24th Conference on User Modeling, Adaptation and Personalization (**UMAP**, **28% acceptance rate**), Halifax, Canada, 13/07/2016
- **G. Piao** and J. G. Breslin, “*Measuring Semantic Distance for Linked Open Data-enabled Recommender Systems*”. The 31st ACM/SIGAPP Symposium on Applied Computing (**SAC**, **24% acceptance rate**), Pisa, Italy, 04/04/2016
- **G. Piao**, S. S. Ara and J. G. Breslin, “*Computing the Semantic Similarity of Resources in DBpedia for Recommendation Purposes*” [**Best Paper Candidate**]. The 5th Joint International Semantic Technology Conference (**JIST**, **33% acceptance rate**), Yichang, China, 12/11/2015
- **G. Piao** and W. Kim, “*Introduction to iPad Application Development with PhoneGap*”. International Journal of Innovation, Management, and Technology, 2013
- **G. Piao**, “*An Ontology-based Optimization Modeling System for ad-hoc business problems*”. Master’s Thesis, Yonsei University, 2012
- **G. Piao**, Y. Y. and W. Kim, “*Semantic Web Constraint Language complement and the editor development in Protege*”. Korean Society of IT Service (Domestic Conference), 2011

POSTERS

- **G. Piao** and J. G. Breslin, “*Analyzing MOOC Entries of Professionals on LinkedIn for User Modeling and Personalized MOOC Recommendations*”. The 24th Conference on User Modeling, Adaptation and Personalization (**UMAP**), Halifax, Canada, 13/07/2016
- **G. Piao** and J. G. Breslin, “*DBQuote: A Social Web based System for Collecting and Sharing Wisdom Quotes*”. The 5th Joint International Semantic Technology Conference (**JIST**), Yichang, China, 12/11/2015

Grants

- 2017 **Hypertext Student Travel Award**, SIGWEB
- 2016 **UMAP Student Travel Award**, UMAP Inc., Microsoft & Google
- 2016 **SAC Student Research Competition Travel Award**, ACM SAC & Microsoft
- 2015 **UMAP Student Travel Award**, UMAP Inc.
- 2014 **Ph.D Scholarship (4 years)**, SAP and SFI
- 2011 **Scholarship for International Students**, Yonsei Uni.
- 2011 **Fund Scholarship (2 among all applicants)**, Yonsei Uni.
- 2010 **Scholarship for International Students**, Yonsei Uni.
- 2010 **ICMIT Travel Grant**, The Ministry of Knowledge Economy & Korea Industrial Tech. Foundation