

Bo Kang

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Data Science Lab
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Education

- **Ph.D., Computer Science**
Faculty of Engineering and Architecture, Ghent University, Belgium, 2015 - Present
- **M.Sc., Computer Science**
Institute of Computer Science, University of Bonn, Germany, 2012 - 2015
Grade: 1.0/1.0, ausgezeichnet
- **B.Eng., Software Engineering**
College of Software Engineering, Sichuan University, China, 2005 - 2009
Grade: 2.3/1.0, gut

Research Experience

- **Ghent University**, Ghent, Belgium, 10/2015 - Present.
Research Assistant, Advisors: Prof. Tijl De Bie, Dr. Jeffrey Lijffijt
I am working on project “FORSIED” - formalizing subjective interestingness in exploratory data mining. My primary interests are data mining and machine learning, and more specifically dimensionality reduction algorithms for visualization.
- **University of Bristol**, Bristol, United Kingdom, 06/2015 - 09/2015.
Research Assistant, Advisors: Prof. Tijl De Bie, Dr. Jeffrey Lijffijt
I worked on project “FORSIED” - formalizing subjective interestingness in exploratory data mining.
- **Fraunhofer IAIS**, Schloss Birlinghoven, Germany, 06/2012 - 05/2015.
Research Assistant, Advisors: Dr. Mario Boley, Dr. Tamas Horvath, Prof. Stefan Wrobel
We investigated co-active learning models and adaptive time-allocation strategies to develop an exploratory data analysis system - “One Click Mining”. This project later evolved into two open source projects: realKD and Creedo.
- **University of Bonn**, Bonn, Germany, 09/2012 - 12/2012.
Research Assistant, Advisors: David Dröschel, Prof. Sven Behnke
I worked on the visual odometry module of a lightweight quadcopter.

Publications

- **B. Kang**, J. Deng, J. Lijffijt, and T. De Bie, “Clipped projections for more informative visualizations [a work-in-progress report],” in *Proceedings of the 23rd ACM SIGKDD Workshop on Interactive Data Exploration and Analytics (IDEA)*, 2017
- K. Puolamäki, **B. Kang**, J. Lijffijt, and T. De Bie, “Interactive visual data exploration with subjective feedback,” in *Machine Learning and Knowledge Discovery in Databases: European Conference, ECML PKDD 2016, Riva del Garda, Italy, September 19-23, 2016, Proceedings, Part II*. Springer International Publishing, 2016, pp. 214–229

- **B. Kang**, K. Puolamäki, J. Lijffijt, and T. De Bie, “A tool for subjective and interactive visual data exploration,” in *Machine Learning and Knowledge Discovery in Databases: European Conference, ECML PKDD 2016, Riva del Garda, Italy, September 19-23, 2016, Proceedings, Part III*. Springer International Publishing, 2016, pp. 3–7
- **B. Kang**, J. Lijffijt, R. Santos-Rodríguez, and T. De Bie, “Subjectively interesting component analysis: Data projections that contrast with prior expectations,” in *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. ACM, 2016, pp. 1615–1624
- J. Lijffijt, **B. Kang**, K. Puolamäki, and T. De Bie, “Side: A web app for interactive visual data exploration with subjective feedback,” in *Proceedings of the 22nd ACM SIGKDD Workshop on Interactive Data Exploration and Analytics (IDEA)*, 2016
- T. De Bie, J. Lijffijt, R. Santos-Rodríguez, and **B. Kang**, “Informative data projections: A framework and two examples,” in *European Symposium on Artificial Neural Networks (ESANN)*, 2016
- J. Lijffijt, E. Spyropoulou, **B. Kang**, and T. De Bie, “P-n-rminer: A generic framework for mining interesting structured relational patterns,” *International Journal of Data Science and Analytics*, 2016
- J. Lijffijt, E. Spyropoulou, **B. Kang**, and T. De Bie, “P-n-rminer: A generic framework for mining interesting structured relational patterns,” in *IEEE International Conference on Data Science and Advanced Analytics (DSAA)*, 2015
- M. Boley, M. Krause-Traudes, **B. Kang**, and B. Jacobs, “Creedo-scalable and repeatable extrinsic evaluation for pattern discovery systems by online user studies,” in *Proceedings of the 21st ACM SIGKDD Workshop on Interactive Data Exploration and Analytics (IDEA)*, 2015, pp. 20–28
- M. Boley, M. Mampaey, **B. Kang**, P. Tokmakov, and S. Wrobel, “One click mining: Interactive local pattern discovery through implicit preference and performance learning,” in *Proceedings of the 19th ACM SIGKDD Workshop on Interactive Data Exploration and Analytics (IDEA)*, 2013, pp. 27–35

Presentations and Posters

- **B. Kang**, J. Lijffijt, R. Santos-Rodríguez, T. De Bie, “A graph based approach for formalizing subjective interestingness of data projections”. Poster: *The 14th International Symposium on Intelligent Data Analysis (IDA)*, 2015.
- **B. Kang**, “One click mining: Interactive local pattern discovery through implicit preference and performance learning”. Presentation: *Advanced Database Research and Modeling Group*, University of Antwerp, Belgium, Aug. 19-20th, 2013.

Teaching Experiences

- Ghent University, Summer Semester 2017
Teaching Assistant, I am supervising the laboratory classes of the *Big Data Science* lecture.
- Ghent University, Summer Semester 2016
Teaching Assistant, I was supervising the laboratory classes of the *Big Data Science* lecture.

- University of Bonn, Summer Semester 2014
Teaching Assistant, I was giving the exercises of the *Data Mining* lecture.
- University of Bonn, Winter Semester 2013
Teaching Assistant, I was giving the exercises of the *Machine Learning* lecture.
- University of Bonn, Summer Semester 2013
Teaching Assistant, I was correcting the assignments of the *Data Mining* lecture.

Community Services

- Program committee member, *European Conference of Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECML-PKDD)*, 2016, 2017.
- Program committee member, *ACM SIGKDD Workshop on Interactive Data Exploration and Analytics (IDEA)*, 2017.
- Program committee member, *Computer Science Conference for University of Bonn Students (CSCUBS)*, 2014, 2015.

Skills

- Programming Languages: Java, Matlab, Python, C/C++, Shell, Javascript, L^AT_EX
- Natural Languages: Chinese (native), English (fluent), German (intermediate level), Japanese (beginner level).