Guanli Liu

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Skills

- Programming languages: Java, Python, C++, SQL, LaTex
- Machine learning tools: TensorFlow, PyTorch, TorchLib, Scikit-learn, Weka,
- Research interests: Learned index, Spatial index, Spatial data management

Education

The University of Melbourne, Melbourne, Australia 2019 – Present

PhD Candidate in Computing and Information System, expected **Jul. 2023** (GPA: H1)

Northeastern University, Shenyang, China 2013 – 2015

M.S. in Computer Technology (GPA: 82.65 / 100)

Northeastern University, Shenyang, China 2009 – 2013

B.S. in Software Engineering (GPA: 87.67 / 100)

Experience

The University of Melbourne Victoria, Australia Aug. 2019 – Present

Tutor Comp90018 (Mobile Computing) & Comp90041 (Programming and Software Development)

- Android (Comp90018) and Java (Comp90041) introduction and demonstration
- Project guidance and assignment marking

Baidu Inc. Beijing, China Jul. 2015 – Aug. 2017

Senior Researcher and Developer Android Development (Java)

Our team develops enterprise intelligent work platform [**infoflow**], which supports Desktop, iOS, and Android. I work in an Android Development group with around ten engineers, focusing on Instant Messaging (IM) software development. We pay attention to team work and each single task is finished with PM, UI, UE, QA and interior code review. Key contributions are as follows:

- Message design: protocol design, Recall message, Delete message, Red pocket Message, etc
- Heartbeat mechanism:
- Voice assistant: Voice recognition SDK integration, send message, order meeting room, etc
- Application centre: Configure and manage enterprise applications

Published Papers

- Guanli Liu, Lars Kulik, Xingjun Ma, Jianzhong Qi. A Lazy Approach for Efficient Index Learning. arXiv preprint arXiv:2102.08081. [**source code**] (C++)
- Jianzhong Qi (supervisor), Guanli Liu, Christian S. Jensen, and Lars Kulik. Effectively Learning Spatial Indices. PVLDB, 13(11): 2341-2354, 2020. [**source code**] (C++)
- Yu Gu (supervisor), Guanli Liu, Jianzhong Qi, Hongfei Xu, Ge Yu, and Rui Zhang. The Moving K Diversified Nearest Neighbor Query. TKDE, 28(10): 2778-2792, 2016.

Honors and Awards

Yearly performance appraisal in Baidu *Top 20%*	2016
Outstanding master student *Top 5%*	2014
3rd Prize prize of American college students' mathematical modelling contest	2011
3rd Prize prize of Google Android application development in China	2011