

Xingzhi Niu

Curriculum Vitae

Research and Experience

Jan 2019 - Present

Research Assistant, Bioinformatics group
University of Washington Tacoma, Tacoma WA

- Supervised by Ka Yee Yeung
- Build cloud tools to deploy and accelerate computational biology workflows
- Data processing, visualization and machine learning models for medical data

Nov 2018 - Present

Graduate Research Fellow, Wei Cheng's Group
University of Washington Tacoma, Tacoma WA

- Real-time Street Parking Sign Recognition and Semantic Analysis
- Design text detection and recognition models
- Rule-driven method for semantic analysis

Oct 2016 - Jul 2018

Research Assistant, Knowledge Engineering Group (KEG)
Tsinghua University, Beijing, China

- Supervised by Juanzi Li
- Designed algorithms for data mining, natural language processing and computer vision tasks
- Data processing, algorithm implementation and experiments

Jan 2018 - Jul 2018

Hierarchical Taxonomy Induction from Unstructured Corpus
Tsinghua University, Beijing, China

- Undergraduate thesis supervised by Jianyong Wang and Juanzi Li
- Taxonomy extraction, embedding, clustering, and classification algorithms

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Education

2014 - 2018 Bachelor of Engineering
Computer Science and Technology
Tsinghua University
GPA: 3.3 out of 4.0

2018 - Present Master of Science
Computer Science and Systems
University of Washington Tacoma
GPA: 4.0 out of 4.0

Academic Interests

Bioinformatics and Computational Biology
Distributed System
Data Mining and Visualization
High Performance Computing

Computer Skills

Proficient Knowledge	Data Mining, Machine Learning, Cloud and Distributed Systems
Intermediate Knowledge	Java/HTML/Backend Engineering, High Performance Computing, Computer Vision, Database
Programming Languages	Python, Java, R, C++, C, Lua
Machine Learning	PyTorch, Keras, SkLearn

Publications

Xingzhi Niu, Dimitar Kumanov, Ling-Hong Hung, Wes Lloyd and Ka Yee Yeung. "Leveraging Serverless Computing to Improve Performance for Sequence Comparison" Proceedings of the 2019 ACM International Conference on Bioinformatics, Computational Biology and Health Information (BCB)

Ling-Hong Hung, Xingzhi Niu, Dimitar Kumanov, Wes Lloyd and Ka Yee Yeung. "Rapid RNA Sequencing Data Analysis Using Serverless Computing on Cloud Platforms" (Submitted to Nature Methods)

Feng Zhao, Xingzhi Niu, Shao-Lun Huang and Lin Zhang. "Reproducing Scientific Experiment with Cloud DevOps" (Submitted to Computing in Science and Engineering)