Ziqi (Alan) Dong

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA, U.S.A. Sep. 2019- Dec. 2020

M.S. in Software Engineering

Northeastern University, Shenyang, China Oct. 2015- present

B.E. in Software Engineering

- GPA: **3.72/4.0**, Major GPA: **3.84/4.0**, Rank: **4/59**, TOEFL: **107/120**
- *Honors and awards*: Meritorious Winner, Mathematical Contest in Modeling, COMAP, 2018; Academic Outstanding Individual, Northeastern University,2018; Second-class Scholarship, Northeastern University, 2017, 2018; Second Prize, Contemporary Undergraduate Mathematical Contest in Modeling, CSIAM, 2017

Nanyang Technological University, Singapore Feb. 2018

Short-term exchange program

PUBLICATIONS

[1] Shengzhe Xu, **Ziqi Dong**, Na Meng, Meditor: Semantics-Based Generation and Application of API Migration Edits, 2019 ACM International Collegiate Programming Contest (ICPC 2019).

[2] Chaohe Zhang, Dancheng Li, Hongfa Wu, Chunyan Han, **Ziqi Dong**, Hailong Li, Chen Ding, A Prediction Method of MicroRNA Based on TensorFlow Framework, 2017 CHINESE NATIONAL CONFERENCE on COMPUTERS APPLICATION (NCCA 2017).

PROFESSIONAL EXPERIENCES

Virginia Tech, Blacksburg, VA, U.S.A. Sept. 2018 - Nov. 2018

Research Intern, Advisor: Dr. Na Meng

- *Designed* a semantics-based mining algorithm that learns the code patterns from library migrations and implemented a tool that generates the java code during migrations of library APIs. Achieved coverage of four popular libraries (Lucene, Bukkit, Android and CommonIO) with 95%+ accuracy.
- *Applied* scripts and models that mines open source repositories for migration-related (MR) commits, and a semantic analysis that conducts inter-procedural analysis on changed Java files to locate and cluster MR code changes.
- *Evaluated* the effectiveness of manual testing, monkey testing, and stochastic model-based (Stoat) testing by counting the event-logs emitted by Android APK. Results indicate that Stoat testing performs the best in terms of lifecycle events and is able to mimic human behaviors for certain apps.

NEUSoft Inc., Shenyang, China June 2018 - Sept. 2018

Software Engineering Internship

- *Developed* the beta-version of an end-to-end smart logistic system that takes operational commands from mobile applications and communicates with the core database for further business operations.
- *Developed* the initial framework end-to-end for the logistic system using Qt, designing the management flow of the data warehouse and end-testing. Adopted the test-driving approach during the development and contributed to 1,000+ lines of testing code to the code base.
- *Implemented* a deep-learning model using OpenCV and Caffe that is capable of recognizing vehicle plates at the highway entrance to achieve automatic payment. Achieved 95%-97% accuracy in Neusoft Enterprise Database.

Northeastern University, Shenyang, China Mar. 2017 - June 2017

Research Assistant, Advisor: Prof. Dancheng Li

- *Carried* out a neural network model is proposed to predict human pre-miRNA and is implemented in TensorFlow. The result achieves 90%+ accuracy which is better than most of the human pre-miRNA predicting algorithm.
- *Conducted* data retrieval and pre-processing the raw RNA sequence data; conducted a comprehensive parameter tuning process in a semi-automatic manner.

SKILLS

Programming Languages: C, C++, Python, Java, HTML, JavaScript, SQL, XML, CSS, QML.

Framework: TensorFlow, OpenCV, Vue, Qt