Linxiao **Wang**

4TH YEAR PHD STUDENT @ CSD.UWO

(+1) 519-852-1836 | lwang739@uwo.ca

Education

UWO(University of Western Ontario) — *London, ON, Canada*

PHD. IN COMPUTER ALGEBRA SUPERVISED BY PROF. MARC MORENO MAZA — *May. 2018 - Aug. 2022 (expected)*

- Member of the ORCCA (Ontario Research Centre for Computer Algebra) Lab

UWO(University of Western Ontario) — *London, ON, Canada*

M.SC. IN COMPUTER SCIENCE SUPERVISED BY PROF. MARC MORENO MAZA — *Sept. 2016 - Apr. 2018*

RUC(Renmin University of China) — *Beijing, China*

B.ENG. IN COMPUTER SCIENCE AND INFORMATION SECURITY — *Sept. 2011 - Jul. 2015*

Experience

Ontario Research Center of Computer Algebra (ORCCA) Lab — *London, ON, Canada*

RESEARCH ASSISTANT — *Sept. 2016 - Present*

- Research topics are: Computer Algebra, Parallel Computing and High Performance Computing
- Developer of the Basic Polynomial Algebra Subprograms (BPAS) library developer team. Focusing on the prime field arithmetic functions/classes in the library.(C, C++,assembly)
- KLARAPTOR (Kernel Launch Rational Program Estimator), A tool for improving running time of CUDA kernels by estimating block dimensions built on top of CUPTI and LLVM. (C, CUDA, Linux programming,LLVM)
- Integer hull computation and its application in program analysis (Maple, C)

Mitacs Accelerate Fellowship — *London, ON, Canada*

INTERNSHIP WITH MAPLESOFT INC. — *Oct. 2021 - Jan. 2022*

- Designed an algorithm for computing the integer hulls of 2D and 3D polyhedral sets.
- Implemented and integrated the algorithm into the `PolyhedralSets` library in Maple

IBM — *Toronto, ON, Canada*

IBM CENTER FOR ADVANCED STUDIES (CAS) INTERN — *May. 2018 - Aug. 2018, May. 2019 - Aug. 2019*

- Compiler technique for automated performance optimization (C programming language, LLVM)

Electronic Government Research Center, China National School of Administration — *Beijing, China*

RESEARCH ASSISTANT — *Sept. 2015 – May. 2016*

- Preliminarily collecting and analyzing collected data (Python)

Undergraduate Research, Information Security Lab(Prof. Bo Qin) — *Beijing, China*

STUDENT RESEARCHER — *Sep. 2013 - Jul. 2015*

- Researched new method for public group key distribution scheme. (C programming language)

Major Publications

CASC 2021

MORENO MAZA, M., WANG, L. "ON THE PSEUDO-PERIODICITY OF THE INTEGER HULL OF PARAMETRIC CONVEX POLYGONS." INTERNATIONAL WORKSHOP ON COMPUTER ALGEBRA IN SCIENTIFIC COMPUTING. SPRINGER, 2021.

ISSAC 2019

COVANOV, S., MOHAJERANI, D., MORENO MAZA, M., & WANG, L. BIG PRIME FIELD FFT ON MULTI-CORE PROCESSORS. IN PROCEEDINGS OF THE 2019 ON INTERNATIONAL SYMPOSIUM ON SYMBOLIC AND ALGEBRAIC COMPUTATION ACM.

Skills

Programming Languages C/C++, Linux system programming, x86 Assembly Language, Python, JAVA, LaTeX, etc.

English, Chinese (Mandarin)