

LIU CHEN LU

HIGHLIGHTS Have implemented sizable projects in [C](#), [C++](#), [Python](#), [Bash script](#), and [Maple](#)
Experienced with [Haskell](#), [Scheme](#), [MATLAB](#), [XML](#)
Tools experience: [Visual Studio](#), [Cygwin](#), [Vim](#), [Command Line](#), [Microsoft Office](#)
Programming techniques: Lambda functions, object oriented programming, memory management and preventing memory leaks, familiar with hardware architecture
Interests: machine learning, artificial intelligence, optimization, mathematics

TECHNICAL EXPERIENCE **MATH DEVELOPER AT MAPLESOFT** JAN 2013 – APR 2013

- Designed and implemented a more interactive version of the Maple Statistics package aimed at university students; used XML, Maple and derivatives of Maple
- Practiced good programming through version control, code reviews, unit testing, and standard documentation; worked in a large, complex development environment
- Integrated statistics, graphing, worksheet (UI) and XML libraries into one package

UNDERGRADUATE RESEARCH ASSISTANT AT CENTRE FOR PATTERN ANALYSIS AND MACHINE INTELLIGENCE SEPT 2012 – JAN 2013

- Independently reviewed academic papers on various protein SVM string kernels for comparison against supervisor's new method in terms of accuracy and runtime
- Sought out and debugged code (in [C++](#), [Python](#), [MATLAB](#)) from other research projects
- Modified Shogun's DNA string kernels to build a Python interface for protein analysis

PERSONAL PROJECTS

- Functional evolutionary Boids simulating emergent behaviour, [Haskell](#)
- Context free parsing applied to the English language via the CYK algorithm, [Python](#)
- WLPP (subset of C++) to MIPS compiler, [C++](#)
- Scheduler using bipartite matching, [Haskell](#)
- Automated testing suit, [Bash script](#)

Github: <https://github.com/LiuChenLu>

Website: <https://sites.google.com/site/liuchenhelenlu/projects>

EDUCATION **BACHELOR OF COMPUTER SCIENCE, UNIVERSITY OF WATERLOO** SEPT 2011-AUG 2016
3.90 GPA equivalent, Dean's Honour List
BACHELOR OF BUSINESS ADMINISTRATION (CO-OP), WILFRID LAURIER UNIVERSITY
3.84 GPA equivalent, Dean's Honour List SEPT 2011-AUG 2016

AWARDS

- The Google Anita Borg Memorial Scholarship, 2013
- Winning team in 24Hours of Good Hackathon at Google Scholars Retreat, 2013
- Google Challenge Award, 2011
- Semi-finalist team in New Venture Business Competition, 2011
- President's Centennial Award and Centennial Scholarship (WLU), 2011