

# ZHIYUAN LIN, ZANE

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## EDUCATION

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**University of Waterloo**, Waterloo, Canada 09/2014 - 08/2016

**Master of Applied Science in Electrical and Computer Engineering**

Courses: Algorithm Design and Analysis, Compiler Construction, Public-Key Cryptography

**GPA:** 97.60/100

Awards: Faculty of Engineering Award

**University of Glasgow**, Glasgow, UK 09/2012 - 12/2013

**Master of Science in Information Technology *with Distinction***

**GPA:** 20.053/22

**Renmin University of China**, Beijing, China 09/2008 - 07/2012

**Bachelor of Economics**

## WORK EXPERIENCE

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**MosiAxSoft, Inc.** 04/2015 - 08/2015

*Software Engineering Internship (Cloud Computing)* Los Altos, USA

- Developed in Java a cloud security management system that provides a high-level interface for monitoring and configuring the security of cloud platforms such as OpenStack.
- Researched the complexity of various cloud management problems and designed solutions accordingly.

**China Life Insurance Company** 02/2014 - 07/2014

*Software Engineering Internship (Web Development)* Guangzhou, China

- Implemented a human resource management system that facilitates the management of more than 5000 employees using ASP.NET (C#) web services and Microsoft SQL Server.
- Created an AJAX-based interactive web front-end for the system in jQuery.

## PROJECTS

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**Joos 1W Compiler** 01/2016 - 04/2016

*Lead Developer*

- Developed a compiler from the Joos 1W language, a large subset of Java, to NASM assembly.
- Implemented important compiler features such as type checking, static analysis, and code generation.

**Resource Description Framework (RDF) Security** 09/2015 - 08/2016

*Sole Developer*

- Designed and implemented an algorithm that secures RDF graphs using satisfiability (SAT) solvers.
- Empirically evaluated the implementation with real-world input and visualized the data with Matplotlib.

**Matching Algorithms Toolkit** 04/2013 - 08/2013

*Contributor*

- Implemented and optimized several matching algorithms to solve the House Allocation problem.
- Created graphical user interfaces with Java Swing to facilitate the usage of the algorithms.

## SKILLS

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**Programming Languages** (in order of proficiency): Java, Python, C, SQL, JavaScript, Haskell

**Frameworks and Libraries:** SageMath, Scipy, Flask, ASP.NET, jQuery

**Theory:** Algorithm Design and Analysis, Statistical Analysis, Compiler Design, Cryptography

**Languages:** English (Fluent), French (Beginner), Cantonese and Mandarin (Native)