

TIAN XIN

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Education

- **Carnegie Mellon University, Pittsburgh, PA, M.S. in Information Networking** expected 5/2017
 - Coursework: **Operating System Design and Implementation, Compiler Design**, Cloud Computing, Introduction to Computer Security, Computer Networks
- **Tongji University, Shanghai, China, B.E. in Software Engineering, Major GPA 4.86/5** 6/2014
 - Coursework: Compilers, Software Architecture and Design Patterns, Software Engineering
- **Queensland University of Technology, Brisbane, Australia, Visiting Student in Computer Science** 7/2013

Skills

- **Languages:** C, Java, C++, C#, x86 Assembly, Python, HTML5, CSS3, JavaScript, SQL, Clojure (Lisp)
- **Others:** Agile Software Development, Design Patterns

Experience

- **Software Engineer Intern, Microsoft Corporation, Redmond, WA** 5-8/2016
 - Engineer on Microsoft Intune
- **Software Engineer (Overseas Intern), MoAA GmbH, Hamburg, Germany** 10/2013-5/2014
 - Developed a crewing management web application www.HansaCrew.net
 - Introduced **pair programming** to the team, and sped up **18%** for code integration into the master branch

Academic Projects

- **An OS kernel inspired by Unix - Pebbles, Carnegie Mellon University** 2-4/2016
 - Designed and implemented a Unix-like Operating System kernel using **C** and **x86 Assembly**.
 - Implemented 24 important **system calls** including fork, exec, etc..
 - Supports highly preemptible multitask processing and efficient virtual memory management.
 - Supports Multiprocessor machines under Asymmetric Multiprocessing Model.
- **A C0 Compiler - c0c, Carnegie Mellon University** 7-12/2016
 - Designed a C0 compiler, implemented in **OCaml**.
 - Designed and implemented copying garbage collector runtime.
 - Integrated optimizations such as register coalescing, constant propagation and folding, copy propagation and dead code elimination, tail recursion optimization, etc..

Industry Projects

- **Microsoft Intune, Microsoft Corporation, Redmond, WA** 5-8/2016
 - Implemented a full-stack service using **C#** and **TypeScript**
- **Hackathon with Google Glass and HP, 1st Place @ Topcoder** 5-6/2014
 - Developed a Google Glassware using **Android SDK** which records sentences spoken, calls HP IDOL OnDemand **RESTful Web Service** APIs for sentiment analysis and generates graphs to present sentiment changes
- **www.HansaCrew.net, a Crewing Management Web Application, MoAA GmbH, Germany** 10/2013-5/2014
 - Developed the **back end** of application using **C#**, under ASP.NET MVC architecture utilizing **NHibernate**
 - Designed and implemented web **front end** using **HTML5, LESS CSS** and **jQuery**
 - Designed database schema and helped develop **stored procedures** using **Microsoft SQL Server**
- **Google Sheets Analytics Add-on Part 1/ 2/ 3, All 1st Places @ Topcoder** 7/2014
 - Developed a Google Sheets Add-on using **Google Apps Script, HTML5, CSS3** and **JavaScript** and HP IDOL OnDemand APIs to perform analysis on the text extracted from Excel documents, and provided visualization for the analyzed data

Awards and Honors

- **1,956 Reputation on StackOverflow.com, top 19% overall** 2016
- **INI Academic Scholarship, Carnegie Mellon University** 2015
- **Honor of Outstanding Graduate, Tongji University, top 3%** 2014
- **First Prize of Academic Scholarship, Tongji University, top 3%** 2012-2014