

Yi Zhen | Curriculum Vitae

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Experience

- Nov. 2018 – Present, Software Engineer, *Huawei Inc.*, Shanghai, P.R.China
- Apr. 2017 – Nov. 2018, Software Engineer, *Citigroup Inc.*, Shanghai, P.R.China

Job Projects

Ark Compiler

engineer at Huawei Research

A Compiler

Nov. 2018 – Present

- Researched and implemented one invoke-kind instruction for compiler (details confidential)
- Implemented one lexer and parser for compiler (details confidential)

WIRE

engineer at Citigroup

Wire Transfer system for block trading agent

Aug. 2017 – Nov. 2018

Customers book payment, pre-advice and deposit wire transfers on the platform

- Full-stack development for Currency Eligibility module: Developed front-end using MVC model with the help of Ext JS. Implemented CRUD, approval and drill-down analysis of Available Straddle value. Using Facade, Factory and Dynamic Proxy patterns designed and implemented controller, services and DAO for back-end
- Developed reconciliation module for downstream data warehouse team: abstracted business logic to TCP-like 3-way handshake protocol through Finite State Machine model
- Implemented component of unmarshalling SOAP message to JavaBean

EWARA

engineer at Citigroup

Anti money laundering platform

Apr. 2017 – Aug. 2017

- Implemented approval logic for tree-form entities. Developed general DAO for arbitrary tables by JDBC
- Using reflection techniques to extend POJO test module for automation unit test

Miscellaneous

Side Projects.....

Project Lambda

founder

web app

Nov. 2016 – Jan. 2017

A Hacker-News-like social information platform focusing on IT industry and computer science, which users could publish general news, academic contents and questions through it. Reducing time wasting on nonnutritive information is the major goal

Keywords Haskell 8.0.2, Scotty, Persistent, mime-mail, websockets, Blaze, PostgreSQL, Bootstrap, jQuery

Github Address <https://github.com/ProLambda/Times>

Chinese Blog Article <https://izhen.me/2017/08/20/aws-lambda/>

PPrinter: A generic derivable Haskell pretty printer

author

Haskell Library - 1413 times download till 05/27/2018

Jun. 2016 – Aug. 2016

PPrinter is a Haskell library that supports automatic derivation of pretty printing functions on user defined arbitrary data types (the deriving mechanism supports the automatic generation of instances for functions)

Keywords Dissertation Project, Hackage, Haskell 7.10.2

Hackage Address <http://hackage.haskell.org/package/PPrinter-0.1.0>

Compiler of Small-C

developer

system software

Oct. 2015 – Dec. 2015

A compiler for the subset of C language that compiles the source code to Java bytecode. It contains the essential parts of a standard compiler including lexer, parser, semantic analyzer and code generator

Keywords Java 7, ASM 4

Github Address <https://github.com/i-zhen/Reactor-C>

Interpreter of ML-like Programming Language

developer

local app

Oct. 2015 – Oct. 2015

An interpreter written in scala for a simple ML-like programming language which supports syntactic sugar, type checking, recursive function and first-order lambda calculus

Keywords Scala 2.11.7

Github Address <https://github.com/i-zhen/Apache-Longbow>

The Student Activity Center(SAC) Room Reservation System

full-stack developer

web app, not open source

Apr. 2013 – Jun. 2013

Designed a room reservation system for the Student Activity Center in Sun Yat-sen University. Students can use this system to book rooms in SAC and managed their own information

Keywords Python 2.7.5, Javascript, MySQL, web.py, Bootstrap, jQuery

School Team

Sun Yat-sen University ASC Student Supercomputer Challenge Team

Team member

2014

- ASC14 required the team to wring the most HPC performance out of a 3000W power allowance
- Mastered the numerical methods, relevant algorithms, heterogeneous and multiprocessor programming
- Optimized the SU² – a Stanford University developed open-source C++ code for PDE analysis and designed things that adhere to PDE constraints, and assisted in the HPL event

Professional Skills

Programming Language and Framework

Language: Haskell, C/C++, Java, Python, Scala, Prolog, Coq, Isabelle

Framework: Spring, JMS, Ext JS, JUnit, Mockito, JDBC, Logger, Java servlet, SQL, Jaxb2Marshaller

Tools: Jenkins, uDeploy, AutoSys, JIRA, Git, SonarQube, Amazon EC2, NuSMV, Vim, Eclipse, L^AT_EX

Awards

First Prize and Highest Linpack Award

The ASC Student Supercomputer Challenge (ASC14)

2014

Set a new world record of HPL(Linpack) performance and won 10,000 CNY

Bronze Medal

The ACM-ICPC China Guangdong Provincial Programming Contest (GDCPC)

2014

Two-time recipient of First Prize

The National Olympiad in Informatics in Provinces (NOIP)

2009&2008

Education

University of Edinburgh

Edinburgh, U.K.

Master of Science in Artificial Intelligence, Pass with Merit

Sep. 2015 – Nov. 2016

Dissertation: Deriving Pretty-printing for Haskell, supervised by Prof. Philip Wadler

Sun Yat-sen University

Guangzhou, P.R.China

Bachelor of Engineering in Software Engineering, GPA : 3.3

Sep. 2011 – Jun. 2015

Recommended for admission to SYSU and exempted from Gaokao because of well performance at NOIP