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 SU^2 – 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, LATEX

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 (Third Prize)
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