Yihong Zhang

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SKILLS

- Algorithm Design • Object-Oriented Programming • Functional Programming • Web Development
- Languages: Scala, Haskell, Java, Python, PHP, JavaScript, Coq, Racket, Standard ML, LaTeX.

EDUCATION

University of Washington
B.S. in Computer Science, GPA 3.94

Seattle
Sept. 2018—Est. Jun. 2022

- Selected coursework: CSE 421 Introduction to Algorithms, CSE 402 Design and Implementation of Domain Specific Languages, PHIL 472 Axiomatic Set Theory, MATH 134-6 Accelerated Honors Calculus.
- Domain of interests: Programming Languages, Software Engineering, Algorithms.

EXPERIENCES

Codeus Technology Inc.
Software Development Intern

Beijing, China
Aug. 2019–Sept. 2019

- Developed an extensible Python 3 compiler front-end framework from scratch using Java and Antlr 4 for analysing and providing correction hints for users' programs against the standard program to teach programming skills. This substituted the previous Regex-based tools with huge improvements in offering precise hints under more complex cases.

Thinktown Education Inc.
Fullstack Intern

Hangzhou, China
Jul. 2018—Nov. 2018

- Initiated a word quiz system for students status tracking with Laravel and Vue.js as the main developer. Utilized modern toolkits like git and webpack to automate project deployment. Achieved 160k records in 1 month with a daily amount of 8k. At the time I left, the project could cut off about $100k/yr budget in place of mentors' manual work, confirmed by the product department's head.

PROJECTS

Realm.js

- Realm is a JavaScript framework that employs Elm architecture for frontend functional reactive programming (FRP). Under Realm framework, developers can keep their models pure in an intuitive way, which allows them to focus on the transition of data through various events, instead of managing side effects manually.

Handlebars

- This is one of the courseworks in CSE 402. Handlebars is an extensible frontend templating language that compiles to JavaScript. It consists of a parser for the templating language, a compiler that compiles such templates into JavaScript functions, and an extensiblility mechanism of "helpers" with some predefined helpers.

dttp

- dttp is a proof assistant written in Scala modeled after MiniCoq. It provides a basic dependent type checker under Curry-Howard Isomorphism which makes it possible to prove theorems in predicate logics. It's still being actively developped.

HONORS

Rank 5, International Collegiate Programming Contest Pacific NW Region	*Nov. 2018*
Rank 2, International Collegiate Programming Contest UW Qualification Round	*Oct. 2018*
Rank 1 (full score), Programming Ability Test, Zhejiang University, China	*Sept. 2017*
First Prize, National Olympiad in Informatics in Provinces, Zhejiang, China	*Nov. 2016*
Dean's List, University of Washington	*Dec. 2018–Present*