Yihong Zhang

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EDUCATION

University of Washington — Seattle

B.S. in Computer Science, GPA 3.94 — *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. — Beijing, China

Software Development Intern — *Aug. 2019–Sept. 2019*

- Developped an extensible Python 3 compiler front-end framework from scratch using Java and ANTLR4 for analysing and providing correction instructions for users' programs against the standard program to teach programming skills.

Thinktown Education Inc. — Hangzhou, China

Fullstack Intern — *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 mo 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 DSL that employs Elm architecture for frontend functional reactive programming (FRP). Under Realm framework, developers can keep their models pure in a very 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*

PROGRAMMINGL SKILLS

- Algorithm • Data Structure • Web Development • Program Synthesis
- Type Theory • Formal Methods
- Languages: Scala, Haskell, Java, Python, PHP, JavaScript, Coq, Racket, Standard ML, LaTeX.