



Xie Yuheng



NOTES PROJECTS TRANSLATIONS PAPERS COURSES RESUME

Info

- Name: Xie Yuheng
 - Family Name: Xie
 - Given Name: Yuheng
- Born: 1992, in China
- Citizenship: China
- Email: xyheme@gmail.com
- Homepage: xieyuheng.com

Skills

Web full-stack development

- Language: TypeScript
- Frontend: Vue, TailwindCSS
- Backend: NodeJs, MongoDB, PostgreSQL

Formal language design

I am good at:

- Parser generator
- Type checker
- Interpreter
- Stack-based VM

I can help the team design DSL, to use language level abstract to solve

domain problems.

Software Engineering

I know all about:

- Object oriented design
- Design patterns
- Test driven development
- Refactoring

I understand the essence of agile is all about feedback loop.

Education

- B.S. (Mathematics) Sun Yat-sen University, 2015

Experience

Forchange, Shenzhen, 2019-12 - 2021-11

- Contribution:
 - Create interactive teaching platform cleword.cn , which become the company's main product.
 - Create [sisuo](#) project, to explore applications of cognitive psychology in interactive teaching.

Tehang, Shenzhen, 2019-06 - 2019-08:

- Contribution:
 - Third party data sync
 - International hotel API
- Tech: Scala, Akka, PostgreSQL

ChangChunLiXiang Tech, Beijing, 2018-11 - 2019-02

- Contribution: Data mining algorithms, Anomaly detection, Root cause analysis
- Tech: Python, Pandas, Numpy

InBlockchain, Beijing, 2018-03 -- 2018-05

- Contribution: Web backend, GraphQL API
- Tech: Elixir, PostgreSQL

RiceQuant.com, ShenZhen, 2017-11 -- 2018-02

- Contribution: Web backend, Trading strategies
- Tech: Python, Pandas, Numpy, Flask, MongoDB

Teachings

- Assembly Language Experiments, SYSU, 2015 ([Homepage](#)) ([Group](#))
 - Implementing Forth interpreter in assembly language

Projects

Cicada Language

Right now I'm working on [Cicada Language](#), both a *programming language* and a *theorem prover*.

Based on cicada, I want to build a wiki of formalized mathematical theories, to flourish the ideas developed in the *foundations of mathematics*, and serve as a bridge between computer science and mathematics.

EnchanterJS

Since I work as a web developer, learning about all kinds of tools designed for web development is my daily routine.

After encountered [Laravel](#) and its amazing community, I start bringing

its artisan spirit and beautiful API to my team.

Hence EnchanterJS -- a web (and console) application framework, for TypeScript and NodeJs, emphasis on clarity and well typed API.

LogicDB

While learning Logic programming, I started a project called LogicDB, to embed a Prolog-like logic programming language in JavaScript and TypeScript.

ty

ty can be used to write schema to bring TypeScript's types to runtime.

We can use ty schema to do validation and generate random data of certain type.

Lowdim & cell-complex

Lowdim is about modeling low dimensional (0, 1, 2, 3 maybe 4 dimension) topology and geometry.

cell-complex is about topological and geometric modeling in any dimension.

Papers

2019-05-08: A Recursive Combinatorial Description of cell-complex

2016-06-14: Function compose, Type cut, and The algebra of logic

- ICFP, Scheme Workshop, 2016, Nara, Japan