Jingwen Chen

http://jin.crypt.sg | jin@crypt.sg | https://github.com/jin

EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE

Bachelor of Computing (Honours - 2:1 / Distinction) in Computer Science
Focus: Programming Languages
Class of 2017

NGEE ANN POLYTECHNIC

Diploma with Merit in Network Systems & Security
Diploma Plus Programme
Class of 2011
GPA: 3.89 / 4.0

INTERESTS

Programming language theory, type theory, developer tools, compilers, build systems.

AWARDS

- Certificate of Distinction in Programming Languages (Distinctions in Programming Language)
- Greylock Hackfest '16 2nd Prize Winner for **ChromeLens**
- Bronze award for Polytechnic Student Research Programme in Wireless Sensor Networks

INVOLVEMENT

- Volunteered at RedDotRubyConf Singapore. Managed locations and sponsors. (2015)
- NUS Hackers coreteam member. Ran **talks** and **hackathons**. (2014 - 2017)
- National Junior Robotics Competition school representative (LEGO Robotics, RoboSoccer, 2001 - 2010)

TOOLS

Languages
OCaml, Ruby, JavaScript, Swift, Java, Python, Haskell, HTML/CSS
Others
vim, git, docker, LaTeX , shell-scripting

LINKS

twitter.com/jin_
linkedin.com/in/jingwenchen
stackexchange.com/users/246849/

EXPERIENCE

GOOGLE, INC
Software Engineering Intern | Aug 2016 – Nov 2016 | New York, NY
- Proposed, designed and built an artifact cache for Bazel (Google's OSS build tool), removing the need to redownload artifacts after cleans. **bazel.build**
- Rewrote Maven rules from Java to Bazel's extension DSL, Skylark, to improve extensibility surface for open source contributors.
- Side-project: Implemented OCaml rules in Skylark for building binaries.

TWITTER, INC
Software Engineering Intern | May 2016 – Aug 2016 | San Francisco, CA
- Front-end engineering for **mobile.twitter.com** with the Responsive Web team.
- Built interstitials and Direct Messages UI components with React.js and Redux and integrated Flow type checking into the codebase.
- Deployed releases, went on-call, triaged staging/production bugs, implemented observability features into the server.

VIKI, INC (A RAKUTEN CO.)
Software Engineering Intern | May 2015 – August 2015 | Singapore
- Designed and built a library and reporting service that verifies the integrity of the API and Web platforms in real-time with React.js, Rails, MongoDB and Redis.
- Deployed and tested across production clusters using drone.io and Docker.
- Built image transparency support and canonical URLs in image backend.

TINKERBOX STUDIOS
Software Engineering Intern | June 2014 – Aug 2014 | Singapore
- Developed **Bandwagon** on iOS, a concert discovery app. **App Store**
- Worked closely with the UI/UX design team and product owner through Agile-based iterations on the RubyMotion app and Ruby on Rails backend, backed by Code Climate and Circle CI.

A*STAR INSTITUTE FOR INFOCOMM RESEARCH
Assistant Lab Officer | March 2011 – October 2011 | Singapore
- Built a Ruby on Rails app for an Arduino wireless car park monitoring system.
- Researched wireless structural health monitoring with a Govt housing agency.
- Assisted in offshore underwater wireless sensor network experiments.

Research Intern | March 2010 – August 2010 | Singapore
- Designed & implemented an async & energy-adaptive protocol for wireless sensor networks powered by ambient energy, with C on MSP430 & XBee Radio.

PROJECTS

SUBTYPING TYPECHECKER Haskell
A structural subtyping typechecker for a toy functional programming language with record and function types. **github.com/jin/subtyping**

MAHJONGLEH iOS (Swift), SpriteKit, Game Center
Singaporean multiplayer tabletop tile game. Reached #1 Board/Family game in Singapore App Store. 4 stars with 360 ratings. **crypt.sg/mahjongleh**

RAYTRACER JavaScript, WebGL/GPU.js
A parallel and animated raytracer with benchmarking tools. **raytracer.crypt.sg**

CHROMELENS HTML/CSS/JavaScript | Chrome DevTools API
DevTools Extension for web accessibility development. 5000 users. **chromelens.xyz**

SCHEME AND BF INTERPRETERS OCaml | Scala
Implemented interpreters for Scheme and Brainf***. **crypt.sg/scheme** - **crypt.sg/bf**

OCAML RULES FOR BAZEL Skylark (DSL based on Python)
OCaml rule extension for Bazel. **github.com/jin/rules_ocaml**

SOUNDCLOUD INSTANT Sinatra, Redis, SoundCloud SDK
Like Google Instant, but for SoundCloud. **soundcloud.crypt.sg**