

# Samuel Chong Tay

SOFTWARE DEVELOPER

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## Summary

Skilled problem solver with a background in pure mathematics and a passion for functional programming. 4+ years experience in web development, backend/infrastructure, and devops. Proven ability to quickly ramp up on new languages/technologies. Efficiency nerd who loves Linux, vim, and xmonad, and enjoys customizing the development environment.

## Experience

### Software Developer

Aug 2017 - Present

WRINKL

Remote, U.S.

- Developed a websocket-driven chat application in Haskell.
- Leveraged advanced type system features to achieve a high level of code safety.
- Languages: Haskell, Nix.

### Software Developer

Apr 2017 - Aug 2017

EXPANDSHARE

Charleston, SC

- Built core features and microservices for a Learning Manage System.
- Languages: Python, Javascript.

### Applications Engineer

May 2014 - Feb 2017

BLUE ACORN

Charleston, SC

- Developed reusable modules in an object oriented MVC eCommerce framework.
- Founded an educational Functional Programming group with weekly meetups.
- Led an agile team and mentored junior developers.
- Promoted from Apprentice to Senior within two years for exemplary work quality.
- Languages: PHP, Javascript, Bash, Haskell.

### Research Assistant

Summer 2011

ASTROPARTICULE ET COSMOLOGIE

Paris, France

- Conducted research and data analysis in correlation of temperature variation and phase noise for LOT (LISA On Table), an optical simulator for the LISA mission, under Dr. Hubert Halloin.

## Skills

### Development

- Agile experience in both scrum and kanban, along with Jira, Pivotal, Workfront, and ZenHub.
- Experience leading an agile team and mentoring junior developers.
- Experience with direct client interactions and discussing complex technological details with nontechnical stakeholders.

### Languages

- Fluent in Haskell, Python, PHP, Javascript.
- Experience with Bash, C, C++.

### Software

- Frameworks: Snap, Reflex-Platform, Express, Django, Magento, Zend.
- Databases: Postgres, MySQL.
- Devops: Docker, Vagrant, Ansible, RabbitMQ.

### Workflow

- Proficient in Linux and MacOS.
- Enjoy maximizing productivity with development tools such as git, vim, tmux, xmonad, and zsh.

## Education

### Kenyon College

Gambier, OH

B.S. IN MATHEMATICS AND SCIENTIFIC COMPUTING

Sep 2009 - May 2013

- Awarded Distinction on Senior Thesis
- Achieved GPA of 3.91

## Publications

### Pattern Avoidance in Ternary Trees

Journal of Integer Sequences

NATHAN GABRIEL, KATHERINE PESKE, LARA PUDWELL, AND SAMUEL TAY

Dec 2011

<http://arxiv.org/abs/1110.2225>