

# Samuel Chong Tay

SOFTWARE ENGINEER

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## Summary

Skillful problem solver with a background in mathematics and a passion for functional programming. Currently pursuing a doctorate degree at the intersection of statistics and computer science. 5+ years experience in software engineering. Proven ability to quickly ramp up on new languages and technologies.

## Education

### University of Washington

PH.D. IN STATISTICS

Sep 2019 - Present

Seattle, WA

### Kenyon College

B.A. IN MATHEMATICS AND SCIENTIFIC COMPUTING

Sep 2009 - May 2013

Gambier, OH

- Awarded Distinction on Senior Thesis
- Achieved GPA of 3.91

## Experience

### Software Engineer

SIMSPACE CORPORATION

Dec 2018 - Sep 2019

Remote

- Created a realistic network simulation product for cyber security training.
- Leveraged advanced type system features to achieve a high level of code safety.
- Languages: Haskell, SQL.

### Full Stack Developer

WRINKL

Aug 2017 - Sep 2019

Remote

- Developed a websocket-driven chat application, supporting web, iOS, and Android apps.
- Languages: Haskell, SQL, Nix.

### Applications Engineer

BLUE ACORN

May 2014 - Feb 2017

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.
- Languages: PHP, Javascript, Bash.

## 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 details with nontechnical stakeholders.

### Languages

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

### Software

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

### Workflow

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

## Publications

### Pattern Avoidance in Ternary Trees

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

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

*Journal of Integer Sequences*

Dec 2011