# **GENG SNG**

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## **EDUCATION**

**Duke University** 

**B.S. IN COMPUTER SCIENCE & PHILOSOPHY** 

Durham, NC May 2020

General Assembly (Bootcamp)

FULL-STACK WEB DEVELOPMENT IMMERSIVE

Singapore Summer 2016

## **Full-Time Assistant Instructor**

## **EMPLOYMENT**

Singapore

GENERAL ASSEMBLY, WEB DEVELOPMENT (https://generalassemb.ly/education/web-development-immersive)

Summer 2017

- Taught React, Redux, Javascript ES6, Node, MongoDB and other web frameworks to 23 career-changing adults for 3 months.
- Guided students through 4 full-stack projects which led to direct hiring as junior developers / starting their own startup.
- Lead instructor for unit on Ruby, OOP, Ruby on Rails, creating modern MVC web applications and RESTful APIs the Rails way. Students successfully deployed full-stack Rails apps and React + Rails API apps that are in production.

## Freelance Web Developer / Consultant

Singapore

1 YEAR+ EXPERIENCE / 7 PROJECTS

2016-Present

- Benchmarked and diagnosed issues with website performance. Improved load time from 6s to <2s by enabling Webpack HMR and requestIdleCallback() while also reducing latency by enabling HTTP/2.
- Reviewed client infrastructure costs and saved \$1k/month by optimizing high write operation frequency using realtime db
- Experience working in teams for bigger contracts and leading teams of up to 4.

## CEO / Co-founder of Kinla!

Singapore Spring 2013

MOBILE APP TO SEARCH AND PRE-ORDER TAKEAWAY MEALS (CORDOVA)

• Led team of 3 to on-board 15 quick service meal restaurants and secure \$10,000 seed funding.

## **Projects**

## TECHNICAL EXPERIENCE

#### CROWD-SOURCED API FOR STARTUP INFO IN SINGAPORE

https://github.com/snggeng/startups-sg-api

- RESTful API of Singapore's startup scene (investors, startups, hackathons) using Node.js, Express.js, MongoDB
- TDD with Continuous Integration: 93.48% test coverage & 65 tests using Mocha & Chai
- API is in production and frontend client has 50-100 unique monthly visitors

## PROTOSTAR.

https://snggeng.github.io/protoStar-Visualisation

- Research & co-author on paper about optimizing large scale SQL queries on cluster network databases using graph algorithms and mapping graph objects into a database for constant time lookup. (read operation optimized by 70%)
- Mapping Java objects into MySQL using Hibernate ORM, JPA and returning database tuples as Java Objects using JDBC
- Data visualisation using D3.js and cytoscape.js

### REACT REDUX DASHBOARD

https://github.com/snggeng/react-redux-dashboard

- Open-sourced a dashboard template I created and often use for client work
- Built admin dashboard template using React, Redux, Thunk and Axios for Frontend State Management
- Serverless deployment using Google Firebase but compatible with any relational / noSQL database of user's choice

# HackDuke EDUCATION TEAM LEAD

Durham, NC 2016-Present

- Organized 12 workshops throughout the school year featuring student presenters, Duke Alumni, founders and software engineers around Durham to an estimated audience of 30 per workshop
- Co-organized Duke's annual hackathon HackDuke, encouraging students to hack for social good

### Tech Talks / Hackathons

Durham, NC 2016-2017

8 TIME HACKATHON PARTICIPANT

- Mentor & Workshop Presenter for Ruby on Rails @ HackDuke 2016
- https://github.com/snggeng/trip-mapper-demo
- PennApps XVI: React Native iOS App automated reminders for friends
- https://github.com/stevenyang9/Sleepover
- Presented workshops on Ethereum, Progressive Web Apps, React, Redux, and other topics at various hackathons/events

## SKILLS

- Languages: Javascript, Ruby, HTML5, CSS3 (Proficient) / Python, Java, SQL (Familiar)
- Frameworks: Ruby on Rails, Node, Express, React, React Native, Redux, Webpack, Immutable.js, WebSockets, jQuery
- Version Control / Automated Testing: Git, Mocha, Chai, Grunt, Rspec, JUnit, CodeShip, Travis CI, GitLab
- Deployment / Database: AWS S3/EC2, Nginx, Redis, Heroku, OpenSSL, Google Firebase, MySQL, PostgreSQL, MongoDB