

# SUYASH SHEKHAR

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## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE

BComp in Computer Science  
University Scholars Programme  
Expected April 2020 | Singapore

## SKILLS

### Experienced:

Java • Python • Swift  
HTML • CSS • iOS

### Familiar:

Objective-C • Ruby  
Ruby on Rails • C  
Haskell • JavaScript  
SQL • Prolog

## COURSEWORK

Natural Language Processing  
Machine Learning  
Advanced Algorithms  
Operating Systems  
Programming Language Theory  
Probability and Statistics  
Software Engineering

## TEACHING

Data Structures and Algorithms:  
**Spring, 2018**

Software Engineering:  
**Fall, 2018**

## AWARDS

- 2018 **Best Project Award (iOS)**  
NUS Computing Project Showcase
- 2016 **NUS Science and Tech Scholarship**
- 2014 **7 Distinctions**  
at GCE 'A' Levels
- 2012 **A\*STAR India Youth Scholarship** (awarded to top 7 students in India)
- 2011 **Blue Blazer Award**  
(academic excellence throughout High School)
- 2011 **National Talent Search Scholarship**

## CLUBS

### NUS HACKERS | PRESIDENT

April 2017 – Present | NUS, Singapore

- A student group committed to the spread of hacker culture and open source software in Singapore.
- Organised **Hack&Roll 2018**, the largest student-run hackathon in Singapore with **over 450 participants** and **over 100 projects**.
- Organised **weekly technical meetups** with various speakers from the Industry and Academia. The club has organised **154 so far**.
- Organised and **taught at technical workshops** on various topics such as git and web development.

## EXPERIENCE

### SEA (GARENA) | SOFTWARE ENGINEERING INTERN

May 2018 - August 2018 | Singapore

- Build an **iOS Debugging SDK** from using Swift 4 and Objective-C.
- Used **Objective-C runtime** to monitor **Network Latency**
- **Socket programming** in Objective-C to monitor TCP/IP
- Assembly and system calls to estimate **CPU Frequency** and **RAM usage**.
- Other notable features - generating **Stack Trace**, **View Hierarchies**, **System Configuration** and **Resource Consumption**.
- The SDK is incorporated into all new iOS applications by the company.

### TINKERBOX STUDIOS | SOFTWARE ENGINEERING INTERN

May 2017 - July 2017 | Singapore

- Improved, deployed and maintained an **employee feedback system** used by **Grab** and its **2000 over of its employees**.
- Worked on Tinkerdex, a **client management system** while keeping in mind compatibility and design constraints.
- Revamped the Manager's Dashboard and designed a **mailer daemon** to send **real-time updates** to customers.
- Used Ruby on Rails and HTML, CSS and CoffeeScript(JS)/ jQuery.

## PROJECTS

### LUMOS | SWIFT, OBJECTIVE-C RUNTIME

July 2018 - August 2018

- A light Swift wrapper around Objective-C runtime methods.
- Memory and type safe with Swift's strong type system.
- Provides a simple API for method/property swizzling and modifying methods, objects and classes at runtime.

### NUSLIB | SWIFT

March 2018 - April 2018

- An iOS app which allows users to browse, search and reserve books from the NUS Libraries and track their borrowing history.
- Users can also review books and get recommended books based on their search and borrowing history.

### SORTING HAT | PYTHON

February 2018 - March 2018

- Used by the USP hostel office to allocate rooms to its **over 600 residents**.
- Considers both administrations constraints and residents' preferred room types, floors and neighbours.
- Uses **satisfiability** and **backtracking** to optimise for residents' satisfaction.
- Made using Python, **z3-solver** and **pandas** from scratch.