

# Julius Putra Tanu Setiaji

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## Education

### National University of Singapore

Singapore

YEAR 2 UNDERGRADUATE, BACHELOR OF COMPUTING (COMPUTER SCIENCE), HONOURS

Aug 2017 - May 2021 (expected)

- Current CAP (Cumulative Average Points): 4.67 out of 5.00
- Coursework: Parallel Computing, Operating Systems, Data Structures & Algorithms, SICP, Linear Algebra, Discrete Mathematics, Calculus

## Technical Skills

**Experienced** Swift, Elixir, Phoenix, JavaScript, C, Ruby, Ruby on Rails, HTML, CSS, Bash, Ubuntu-based Linux, Git, OpenMP  
**Familiar** MPI, Objective-C, React, Redux, C++, Java, SQL, Python, NodeJS, OpenWRT, Visual Basic, PHP  
**Learning**  $\LaTeX$ , Hugo, Haskell

## Experience

### Garena Online Pte. Ltd.

Singapore

IOS SOFTWARE ENGINEERING INTERN (SWIFT, OBJECTIVE-C, FUNCTIONAL REACTIVE PROGRAMMING)

May 2018 - Aug 2018

- Developed Chainsaw LogViewer, an iOS app capable of handling 200k lines, extracting ZIP files, syntax highlighting, regex searching, and is integrated with the debugging menu of my team's product. App Store link: <https://itunes.apple.com/sg/app/chainsaw-logviewer/id1423011730>
- Analysed and improved CoreData performance in the company's iOS application by adding prefetching to mitigate the  $(n + 1)$  query problem.

### Source Academy (<https://github.com/source-academy/cadet/>)

Singapore

BACKEND ARCHITECT AND TEAM LEAD (ELIXIR, PHOENIX, ECTO, AWS)

May 2018 - PRESENT

- Managed a team of 4 people developing a scalable back-end of Source Academy, the website for NUS CS1101S course, including features such as distributing problem sets, collecting answers, comments on student codes, and auto-grading (on AWS Lambda serverless architecture)
- Maintaining and deploying the website on AWS during the course of the CS1101S module, including Practical Examination for 420 students.
- Designed the overall architecture of the system, including the database schema and API with input from the front-end team.
- Reviewed code submitted by team members. Documented the API interface using **swagger** and achieved 99% code coverage.

### National University of Singapore

Singapore

CS1101S TEACHING ASSISTANT (FUNCTIONAL PROGRAMMING, JAVASCRIPT)

Aug 2018 - PRESENT

- Teaching a group of 8 freshmen on Programming Methodology, based on the Structure & Interpretation of Computer Programs (SICP) book.
- Preparing, proofreading and grading assessments used in the course, especially on the topic of Streams.

## Projects

### NUSIVLEBot (<http://github.com/indocomsoft/NUSIVLEBot/>)

Singapore

DEVELOPER (NODE.JS, MONGODB)

Feb 2017 - PRESENT

- Wrote a Telegram Bot to send push notification when a new announcement is made on the NUS Learning Management System website.

### Wi-Fi Extender and Load-balancer (<https://github.com/indocomsoft/Maker-Portfolio>)

Singapore

BUILDER AND DEVELOPER (OPENWRT, SHELL SCRIPT)

Jan 2016 - Oct 2016

- Built a system using Wi-Fi routers connected via powerline adaptors to extend coverage, but one Wi-Fi router is used as a load-balancer, utilising several other Wi-Fi routers to obtain higher speed on a Wi-Fi network with per-device speed limit.
- Wrote a shell script for monitoring and generating traffic so as not to be logged out from the captive portal. Also wrote a script to parallelise rsync and downloads. More details available on the link above.

## Extracurricular Activity

### NUS Hackers

Singapore

CORETEAM MEMBER

Nov 2017 - PRESENT

- Teaching JavaScript, HTML and CSS in **Hackerschool** hacking workshop.
- Organising **Hack & Roll**, Singapore's largest student-run hackathon.
- Organised **Friday Hacks**, weekly Friday meetups which include one or two technical talks with speakers from the industry or academia.

### NUS Student Union Committee for Information Technology

Singapore

HEAD OF TECHNICAL CELL

Aug 2017 - PRESENT

- Rewrote in Ruby on Rails the internal Co-Curricular Activity website used to track supervising duties and issue tracking system
- Documented procedure to rapidly image computers from a lab and deploy it on another lab using a FOSS solution (Clonezilla).
- Helped planning and taught in Cyberia Camp, a 3-day camp teaching Adobe Photoshop as Training Sub-committee.

## Awards

- 2018 **Honourable Mention**, Orbital (Project Gemini)
- 2017 **Scholar**, ASEAN Undergraduate Merit Scholarship
- 2016 **Bronze Medallist**, Singapore 19th National Olympiad in Informatics

Singapore

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