

Varun PATRO

<https://varunpatro.com>
varun.kumar.patro@gmail.com | +65 9371 6368

EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE

BComp in Computer Science
University Scholars Programme
Expected July 2019

TEMASEK JUNIOR COLLEGE

GCE 'A' LEVELS
Grad. Dec 2013 | Singapore
7 Distinctions in A Levels
Overall Best Student Award

AWARDS

2015	Most promising startup at YouthHack.
2015	Emirates Hackathon Best API Use.
2015	Smart Health Hackathon Top 4 award.
2014	Science & Technology Undergraduate Scholarship.
2013	Junior College Overall Best Student Award.

SKILLS

PROGRAMMING

Experienced:

Java • JavaScript
GoLang • Python • OCaml

Familiar:

C • C++
Prolog • HTML&CSS

FRAMEWORKS & STACKS

React • ExpressJS

COURSEWORK

UNDERGRADUATE

- Theory of Computation
- Compiler Design
- Parallel Programming
- Distributed Systems
- Operating Systems
- Information Retrieval
- Machine Learning

EXPERIENCE

JANE STREET | SOFTWARE ENGINEERING INTERN

May 2018 - Aug 2018 | Hong Kong

- Designed and implemented a logging library using Kafka and OCaml.
- Created tools to parse market events to analyze stock exchange behaviour.
- Researched and implemented low latency libraries for machine learning algorithms using OCaml and C.

JUMP TRADING | SOFTWARE ENGINEERING INTERN

Jun 2017 - Aug 2017 | Chicago, IL

- Parallelized processing and communication of real time profit, loss and risk levels of high frequency trading activities.
- Use super compute clusters to verify data correctness for symbols on multiple exchanges for several years.

ASANA | SOFTWARE ENGINEERING INTERN

Feb 2017 - May 2017 | San Francisco, CA

- Mitigated database bottlenecks using shared Redis locks (Redis and NodeJS).
- Built a snapshot tool to eliminate server redundancy which saved company over \$75,000 a year.
- Built a faster server recovery tool for failed servers which reduced recovery time from 4 days to 15 minutes. (Python)

GARENA | SOFTWARE ENGINEERING INTERN

May 2016 - Aug 2016 | Singapore

- Profiled & optimized microservices to improve latency. Achieved 30% improvement for 20,000 queries per second (Golang).
- Wrote tools to collect application metrics, visualize graphs and alert staff during crises (Golang, InfluxDB and Grafana).

GRABTAXI | SOFTWARE ENGINEERING INTERN

Jun 2015 - Aug 2015 | Singapore

- Developed and deployed cashless payment system to production (Golang).
- Anonymized communication between drivers and passengers (Android and Twilio).

RESEARCH

VERB DURATION DISCOVERY | MACHINE LEARNING, NLP

Jan 2016 - Dec 2016 | Singapore

- Used supervised and unsupervised learning models to analyze verbs from various lexicons and corpora (scikit-learn and nltk).

JAVASCRIPT DEBUGGER | PROGRAMMING LANGUAGES, COMPILERS

Singapore, Dec 2014 - April 2015 | Singapore

- Built a JavaScript compiler and debugger for effective teaching of programming.

CLUBS

NUS HACKERS | EX-PRESIDENT

Nov 2015 - | Singapore

- Taught programming workshops in HTML, JS, Git, Swift, ExpressJS, Rails.
- Organized largest student-run hackathon in Singapore with 550+ participants.