



# Deming Lin

SOFTWARE ENGINEER · UNDERGRADUATE

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*"Whatever it may be, one hundred percent and then some"*

## Personal Statement

### About Me

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I am a penultimate year computer science undergraduate at the National University of Singapore. I have been programming for 2 years, and I love learning about new technologies and getting my feet wet in projects to try them out. Being able to make an impact and help people brings a lot of joy to me, and my 'one day' dream is to be able to combine both my passion in technologies and in making a positive impact to the society.

### Experience

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I started programming when I enrolled in college as a computer science major. After picking up important programming and software engineering concepts in college, I was offered a back-end software development role at a local startup company NodeFlair during the summer where I quickly transited into doing full-stack web development role.

I was tasked with writing back-end APIs, database queries, implementing websockets, providing parts of the front-end logic and styling the platform. I was also tasked with doing basic devops work, mainly on deploying of web application, backing up of servers and database while troubleshooting any problems that occurs along the way.

Currently, I am continuing my work at NodeFlair on a part-time basis and studying. I am also doing basic freelance technology consulting for a small local business where I give advice on and help out with the maintenance of their website. Outside of work and study, I try to explore new technologies and continue to dabble in personal projects during my free time.

### Internship Objectives

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I hope to delve deeper beyond basic web technologies. If possible, I would also be more than happy to explore new areas like mobile development, machine learning or even data science.

I also hope to be exposed to the entire process of problem solving in the context of a startup, from finding a product market fit to scaling the product for many users.

### How I Can Contribute

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Firstly, I am able to learn fast under stressful conditions. Thus, I am able to quickly familiarized myself with the existing codebase and learn any new technologies required so that I can start contributing within a short time frame.

Beyond development work, I also have some experience in deploying and managing software projects. I have experience deploying across various platforms, such as Heroku and Amazon Web Services.

Finally, I am self-driven and get along well with people in general. I am confident I can integrate well with any team and work well together with them to push quality products fast.

**Deming Lin**

# Education

## National University of Singapore

BACHELOR OF COMPUTING (HONOURS) IN COMPUTER SCIENCE

- Course details in Appendix A

Singapore

July. 2017 - Exp. May. 2021

## Serangoon Junior College

SINGAPORE-CAMBRIDGE GENERAL CERTIFICATE OF EDUCATION ADVANCED LEVEL (5 DISTINCTIONS)

- Dean's List in 2013 and 2014

Singapore

Feb. 2013 - Dec. 2014

# Work Experience

## Software Engineer

NODEFLAIR

- Work closely with key stakeholders of the company: CEO, product team and the marketplace team
- Leading a small team of 2 engineers to revamp the onboarding process
- Manage and enforce engineering team workflow
- Assists in hiring of engineers
- Maintains the AWS ElasticBeanstalk server hosting NodeFlair web application

Singapore

Aug. 2019 - PRESENT

## Software Engineering Intern

NODEFLAIR

- Tech Stack: HTML/CSS, Javascript, React, Ruby on Rails, PostgreSQL, AWS ElasticBeanstalk, AWS RDS
- Revamped the company dashboard and chat system leading to 100% increase in offer rate
- Implemented all back end API end points
- Wrote SQL queries to allow server to retrieve data from Postgres database
- Wrote part of frontend logic and improved on styling

Singapore

May. 2019 - Aug 2019

## Freelance Technology Consultant

MIISTORE COSTUMES

- Maintained backend server
- Maintained frontend wordpress plugins
- Assisted in migration of email service and hosting service

Singapore

Jun. 2019 - Aug. 2019

## NUS Orbital Instructor

NATIONAL UNIVERSITY OF SINGAPORE

- Tech Stack: HTML/CSS, React, Nodejs/Express.js, SQL, Git, Github
- Served as facilitator for Full Stack Web Development and Git workshops
- Helped Debug issues faced by students
- Helped students to better understand concepts in web development
- Provided tips to students on web development

Singapore

May. 2019 - July. 2019

## Commando Fighter

1ST COMMANDO BATTALION

- Resolved any IT related issues in the battalion's offices
- Managed the battalion's IT equipment inventory

Singapore

Nov. 2015 - Dec. 2016

# Skill Sets & Proficiency

<b>Programming</b>	<b>Proficient:</b> Java, JavaScript
	<b>Intermediate:</b> Ruby
	<b>Basic:</b> C, Python, Bash Script
<b>Web Development</b>	<b>Proficient:</b> HTML5, CSS3, Bootstrap, MaterializeCSS
	<b>Intermediate:</b> Node.js, Express.js, React/Redux, Ruby on Rails, SASS, Handlebars.js
	<b>Basic:</b> Java Spring Boot, Vue/Vuex
<b>Database</b>	<b>Proficient:</b> PostgreSQL, MySQL
	<b>Basic:</b> MongoDB
<b>Version Control</b>	<b>Proficient:</b> Git, GitHub, BitBucket
<b>Devops</b>	<b>Basic:</b> Debian-based Linux, AWS Elastic Beanstalk, Heroku, Google App Engine
<b>Languages</b>	English, Chinese

# Programming Related Projects

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## Chairvise

TEAM LEAD & FRONTEND DEVELOPER

Sep. 2019 - PRESENT

- Tech Stack : Vue, Vuex, Java Spring Boot, MySQL, Google App Engine, Google Cloud SQL
- A web application to analyze paper submission information for conferences
- Implemented Frontend UI to support multiple conferences

## Portfolio Website

SOLE DEVELOPER

Aug. 2019 - Aug. 2019

- Tech Stack : JavaScript, HTML & CSS, SASS
- GitHub Link: <https://github.com/deming16/deming16.github.io>
- A revamp of the original bootstrap portfolio site that I had
- Used BEM CSS architecture with SASS 7 in 1 structure and modern CSS properties

## CarouShare

TEAM LEAD & LEAD DEVELOPER

Mar. 2019 - Apr. 2019

- Tech Stack : MaterializeCSS, Handlebars.js, Nodejs, PostgreSQL
- GitHub Link: <https://github.com/deming16/CarouShare>
- A stuff sharing website where people can list items for loan and bid for items to borrow
- Implemented schema and database for the web app
- Implemented back end API using Express.js and database queries
- Implemented front end UI interaction of the web app

## 4 Player Pong

MAIN DEVELOPER

Feb. 2019

- Tech Stack : WebRTC, C#, Unity, JavaScript, HTML & CSS
- GitHub Link: <https://github.com/deming16/4-Player-Pong>
- Made a multiplayer game where players play using a shared screen while using their mobile devices as a controller
- Handled the making of the game itself and connecting WebRTC to the WebGL game

## ModsUni

DEVELOPER

Aug. 2018 - Nov. 2018

- Tech Stack: Java, JavaFX, Junit
- GitHub Link: <https://github.com/deming16/ModsUni>
- Implemented administration tools to manage the module database
- Implemented GUI for the administration tools
- Wrote unit and integrated tests for the code base related to the administration tools

## Highway

TEAM LEAD & LEAD DEVELOPER

May. 2018 - Aug. 2018

- Tech Stack: Unity, C#
- GitHub Link: <https://github.com/deming16/Highway-1478>
- Made a 3D endless runner game during summer
- Players can choose from different avatars and different levels with unique challenges
- Features a leaderboard where top players can compare their scores globally

## Video Joiner Shell Script

SOLE DEVELOPER

Dec. 2017 - Dec 2017

- Tech Stack : Bash Script
- GitHub Link: <https://github.com/deming16/bashscripts>
- Made a mini bash script to automatically join and convert files downloaded from bilibili

# Extracurricular Activities

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## Hack and Roll 2019

Singapore

MAIN DEVELOPER

Feb. 2019

- Worked in a team of four to complete a multiplayer pong game using mobile devices as controllers in a 24-hour hackathon

## National Olympiad in Informations 2018

Singapore

TECHNICAL HELPER

Mar. 2018

- Helped resolve issues relating to GNOME desktop and debian-based linux
- Facilitated the movements of participants from venue to venue

**Degree:** Bachelor of Computing (Honours) in Computer Science

**Cumulative Average Point: 4.06/5.00**

Year	Level	Course Description	Grades
Aug - Nov 2017	Year 1/Semester 1	Programming Methodology	B+
		Discrete Structures	B
		Linear Algebra	B+
		Quantitative Reasoning	A-
		English for Academic Purposes	A
Jan - May 2018	Year 1/Semester 2	Advanced Programming Methodology	B+
		Data Structures and Algorithms	B-
		Computer Organisation	A-
		Calculus for Computing	B+
		Innovations in Organisations and Society	S
Aug - Nov 2018	Year 2/Semester 1	Independent Software Development Project (Orbital)	CS
		Effective Communication for Computing Professionals	B+
		Software Engineering	A-
		Introduction to Operating Systems	B+
		Introduction to Computer Networks	B
		Journey of the Innovator	CS
		Asking Questions	CS
Jan - May 2019	Year 2/Semester 2	Database Systems	A-
		Design and Analysis of Algorithms	B+
		Public Health in Action	B+
		Probability and Statistics	B
		General Biology	S
Aug - Nov 2019	Year 3/Semester 1	Software Engineering Principles and Patterns	IP
		Formal Methods for Software Engineering	IP
		Internet Architecture	IP
		Sky and Telescopes	IP
		Everyday Life of Chinese Singaporeans: Past & Present	IP

NUS Grading Scale: A+ A (5.0); A- (4.5); B+ (4.0); B (3.5); B- (3.0); C+ (2.5); C (2.0); D+ (1.5); D (1.0); F (0)

S = Satisfactory; U = Unsatisfactory

CS = Completed Satisfactorily; CU = Completed Unsatisfactorily

EXE = Exempted; IC = Incomplete; IP = In Progress; W = Withdrawn



# NODEFLAIR

5 August 2019

To Whom It May Concern

**Re: Letter of Recommendation for Lin Deming**

It is with great pleasure that I write this recommendation letter for Lin Deming to support his application for the NUS Overseas Colleges programme. Deming joined NodeFlair as a full time Software Developer in summer 2019 and will be continuing with us on a part time basis for the next semester.

With design and implementation of complex web application logic being his main responsibility, Deming has proven himself to be an active and dependable contributor, providing quality deliverables. He implemented reusable backend API code, allowing developers to develop the application at a much faster rate. Deming's work on the backend logic and database schema design of a newly introduced notification system, as well as a real-time chat system using websocket technology, has allowed users on the platform to quickly follow up on necessary actions to be taken.

Aside from his main responsibility, Deming has helped to refactor the front end code from Embedded Ruby to React, implement parts of the front end logic and styling code in the company dashboard and chat system. Furthermore, Deming has also provided support to deployment of the web application to the servers and the maintainence of the servers thereafter.

Deming is also able to thrive and learn fast under stressful conditions. Despite having to juggle between his full time software developer role in NodeFlair, his freelancing work and side projects, Deming is able to pick up web technologies like Ruby on Rails and React from close to zero knowledge by himself within a short timeframe to meet the tight deadlines of development work.

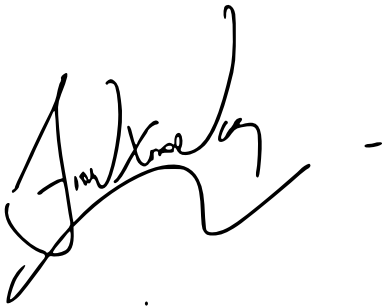
Deming has also taken many initiatives to improve the general workflow of engineering team. He has written documentation on the overview of the web application, database schema and backend API to ensure that other or new developers have the necessary knowledge to provide bug fixes and to do development work. Deming has also made changes to the current git workflow to ensure that the project always have stable and functional code and to allow for hotfixes of production code to be less disruptive.

Beyond technical skills, Deming is also a superb team player and can regularly be seen helping fellow co-workers. Whatever work it may be, Deming's lives by his principle to always give "one hundred percent and then some". After work hours, he would stay to have discussion with his technical lead or the chief technological officer about ongoing work or bugfixes. His drive and discipline to always give quality work has many times resulted in better implementations or solutions to deal with existing problems. Deming is also ever ready to go further and beyond his own scope of work. When required, he is able to step up to help coordinate the engineering team to ensure the process of development work and bug fixing are smooth. He is also flexible to move beyond the role of a developer to contribute to product and design discussion. During tough times, Deming's attitude has always been a positive influence to keep the team's morale high.

As his direct manager, I believe that Deming possesses the necessary skills and qualities needed to add value to his NOC internship company and will benefit greatly from the programme at the same time.

Thank You,

**Recommended & endorsed by:**

A handwritten signature in black ink, appearing to read 'Ethan Ang', with a long horizontal stroke extending to the right.

**Name:** Ethan Ang

**Position:** Co-Founder, CEO

**Company:** NodeFlair

**Date:** 5 August 2019