

Karnati Sai Abhishek

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Personal Statement

Internship Objective

To learn and gain from exposure to challenges in a dynamic environment while making valuable contributions.

About Me

I am a self-driven and ambitious individual currently in my sophomore year pursuing a Computer Engineering major. If I were to summarize myself in one sentence it would be, "someone who likes to be challenged and pushed to his limits through continuous learning and building innovative solutions". Ever since my university journey began, my innate obsession to learn new skills in the technical field has pushed me to experientially learn from my co-curricular experiences.

Strengths & Weaknesses

One of my primary strengths lies in me being a quick learner. During my past internships, despite having no prior experience in the respective fields, I was able to actively contribute in a short period and received very positive feedback from my supervisors for having delivered commendable results. Being of an inquisitive nature, I like to proactively take up more responsibilities and push myself to fulfill them meticulously. Another strength I possess is effective communication skills which I primarily developed through profound discussions of my proposed solutions with superiors for tasks assigned at work. Furthermore, I am a team player who strongly believes that in a work environment, it is very important that the entire team progressively moves forward and that no one is left behind.

On the other hand, I realized my weakness lies in overcommitting. At times, due to my inquisitive and proactive nature, I tend to overload myself with too many tasks which affect their punctuality. However, upon realizing my weakness, I have been quick in taking steps to work around it.

Work Experience

During the summer break after my freshman year, I pursued an internship at a government research institute named A*STAR. I was tasked to work on several aspects of a large-scale industrial IOT project where I managed to pick up new and interesting software technologies. Given the highly stressful work environment, I had to demonstrate good problem-solving skills and as a result was able to engineer innovative solutions with minimal supervision. I am grateful that this internship experience provided me with great exposure to the real-world applications of software engineering and also trained me to be detail-oriented.

In university, given my exceptional performance during my freshman year, my professor nominated me for a Teaching Assistant role in an introductory robotics module, CG1111: Engineering Principles and Practices I. I took it up as I saw it an enriching opportunity for me to share my knowledge about the concepts and lessons I learnt with new inquisitive students. I was assigned to help students with challenges they faced during their lab work, grade their lab reports and give timely feedback. My experience as a teaching assistant gave me great satisfaction to know that I was able to aid students with understanding new concepts and getting them further interested in the modules.

Recently, I took an internship at Amaris.AI, an AI startup. During my internship, I was primarily tasked to work on a computer vision project which exposed me to complex AI concepts and a variety of computer vision applications. During the time I spent there, I achieved results which exceeded initial targets and truly impressed my CTO. Being a team player, I also took the initiative to help out my colleagues when they faced challenges. This valuable exposure to the start-up culture helped me truly understand the importance of collaboration in creating synergy and driving an organization's performance.

How Can I Contribute

My biggest takeaway from my experiences is to seek discomfort in whatever I take up. I strongly believe that by doing so, I can challenge myself in areas not known to me and uncover my hidden potential. I see this internship as one such opportunity to quench my urge to learn new skills while constantly stimulating my capabilities. I trust that my unique skillset and experiences coupled with my optimistic attitude make me a valuable addition to the team.

Education

Aug 2018 – Present	National University of Singapore Bachelor of Engineering (Honours) in Computer Engineering (Course details in Appendix A)	Singapore
May 2014 – May 2016	Global Indian International School <ul style="list-style-type: none">• International Baccalaureate (Grade: 41/45)• Higher Level Subjects: Physics, Chemistry, Mathematics• Standard Level Subjects: Economics, English Literature, Hindi	Singapore

Work Experience

Dec 2019 – Jan 2020	Amaris.AI (Artificial Intelligence Start-Up) <i>Computer Vision Intern</i> <ul style="list-style-type: none">• Developed an image classifier model using transfer learning• Designed and implemented novel algorithms from scratch for real-time user action recognition applications	Singapore
Aug 2019 – Nov 2019	National University of Singapore <i>Teaching Assistant for CG1111 (Refer to Appendix A)</i> <ul style="list-style-type: none">• Explained concepts, clarified doubts and assisted a group of 10 students with their weekly lab work• Monitored, assessed and acted upon their performance by conducting consultations during and after lab sessions• Graded lab reports	Singapore
May 2019 – Aug 2019	A*STAR (Government Research Institute) <i>Software Engineering Intern</i> <ul style="list-style-type: none">• Developed a visualization dashboard and enabled Golang-based EdgeXFoundry, an open-source IOT platform, to monitor real-time data from industrial systems• Reverse-engineered a Windows sensor application to extract data and replicate it on Linux-based embedded systems using Python, Wireshark and MQTT listeners• Established IPV6 connections between a SmartMesh IP network and the Internet using a low power border router	Singapore

Scholastic Achievements/Extracurricular Activities

Aug 2019 – Present	NUS Faculty of Engineering Student Ambassador	Singapore
Aug 2019 – Present	DJI RoboMaster Core Team Member	Singapore
Aug 2018 – Present	Ridge View Residential College <ul style="list-style-type: none">• Part of the Organizing Team for the Special Olympics Swim Meet• Represented the college in the Inter-College games for badminton• Participated in multiple volunteering activities like coastal clean-ups and charity events	Singapore
Jan 2019 – Jul 2019	NUS Faculty of Engineering – Freshman Orientation Week <ul style="list-style-type: none">• Developed and organized activities to familiarize incoming freshmen with NUS module registration system	Singapore
Aug 2018 – Apr 2019	Electrical & Computer Engineering Club <ul style="list-style-type: none">• Project Director for Industrial Attachment visits to externally-sourced companies	Singapore

Skill Sets & Proficiency

Programming	Python	Proficient
	Java	Proficient
	C/C++	Intermediate
	Golang	Basic
	Verilog	Basic
Web	HTML, CSS	Intermediate
	React.js	Intermediate
	Node.js	Intermediate
	Express.js	Basic
	Ruby on Rails	Basic
Database	PostgreSQL	Intermediate
	MongoDB	Basic
Scripting	JavaScript	Intermediate
Markup	XML	Basic
Operating Systems	Windows 7/10	Proficient
	Linux	Intermediate
Version Control	Git	Proficient
Hardware	Raspberry Pi	Intermediate
	Arduino	Intermediate
	Cortex-M3	Intermediate
	Basys3	Basic
Office Productivity	Microsoft Word, PowerPoint	Proficient
	Microsoft Excel	Intermediate
Multimedia	Adobe Premiere Pro	Basic
Non-technical Skills	Project Management	Intermediate
	Software Documentation	Intermediate

Language Proficiency

Spoken	English – fluent; Hindi – fluent; Telugu – fluent
Written	English – competent; Hindi – competent

Degree: Bachelor of Engineering (Honours) in Computer Engineering

Cumulative Average Point: 4.30 / 5.00

Year	Level	Course Description	Grades
Aug – Nov 2018	Year 1/Semester 1	Engineering Principles and Practices I	A
		Engineering Calculus	A-
		Differential Equations for Engineering	B+
		Programming Methodology	S
		Discrete Structures	S
		Professional and Academic Communication	In-progress
		Understanding and Critiquing Sustainability	In-progress
		Workplace Readiness	In-progress
Jan – May 2019	Year 1/Semester 2	Engineering Principles and Practices II	A-
		Data Structures and Algorithms	B+
		Digital Design	A-
		Linear Algebra for Engineering	A-
		Professional and Academic Communication	S
		Understanding and Critiquing Sustainability	S
		Workplace Readiness	CS
		Career Catalyst	CS
Aug – Nov 2019	Year 2/Semester 1	Software Engineering & Object-Oriented Programming	A-
		Database Systems	A-
		Independent Software Development Project (Orbital)	CS
		Transistor-Level Digital Circuits	B
		Computer Organization	B+
		Probability and Statistics	B-
		Cyber Security	S
Jan – May 2020	Year 2/Semester 2	Introduction to Artificial Intelligence	In-progress
		Real-Time Operating Systems	In-progress
		Signals and Systems	In-progress
		Living with Mathematics	In-progress
		The Evolution of a Global City-State	In-progress
		Quantitative Reasoning	In-progress

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