

## Karnati Sai Abhishek

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Portfolio: [Website](#)



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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 penultimate 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 stellar academic 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

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Aug 2018 – Present	<b>National University of Singapore</b> Bachelor of Engineering (Honours) in Computer Engineering (CAP: 4.25/5)	Singapore
May 2014 – May 2016	<b>Global Indian International School</b> <ul style="list-style-type: none"><li>• International Baccalaureate (Grade: 41/45)</li><li>• Higher Level Subjects: Physics, Chemistry, Mathematics</li><li>• Standard Level Subjects: Economics, English Literature, Hindi</li></ul>	Singapore

## Work Experience

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May 2020 – Jul 2020	<b>Hewlett-Packard</b> <i>Software Developer Intern</i> <ul style="list-style-type: none"><li>• Developed a full stack application from the ground-up to support data automation for internal processes on a global scale</li><li>• Identified opportunities and contributed towards process improvement</li><li>• Worked with functional teams in creating efficient algorithms to draw intelligence from raw existing data</li><li>• Tech Stack: React.JS, Node.JS, PostgreSQL, VB, UiPath, Power BI, Power Automate</li></ul>	Singapore
May 2020 – Aug 2020	<b>National University of Singapore</b> <i>Senior Advisor for CP2106 (Orbital)</i> <ul style="list-style-type: none"><li>• Supervised and guided 24 students to complete their self-initiated software project during the summer break</li><li>• Conducted weekly one-on-one meetings to discuss the challenges they faced and advised on how to tackle them</li><li>• Evaluated their monthly milestone submissions to gauge their progress and provided constructive feedback</li></ul>	Singapore
Dec 2019 – Jan 2020	<b>Amaris.AI</b> <i>Computer Vision Intern</i> <ul style="list-style-type: none"><li>• Developed an image classifier model using transfer learning</li><li>• Designed and implemented novel algorithms from scratch for real-time user action recognition applications</li><li>• Tech Stack: OpenCV, NumPy, Pandas, Detectron2 framework</li></ul>	Singapore
Aug 2019 – Nov 2019	<b>National University of Singapore</b> <i>Teaching Assistant for CG1111 (Engineering Principles and Practices I)</i> <ul style="list-style-type: none"><li>• Explained concepts, clarified doubts and assisted a group of 10 students with their weekly lab work</li><li>• Monitored, assessed and acted upon their performance by conducting consultations during and after lab sessions</li><li>• Guided students in the ground-up development of a sensor-assisted autonomous robot</li><li>• Topics Included: DC/AC Principles, Signal Processing, Arduino Programming</li></ul>	Singapore
May 2019 – Aug 2019	<b>Institute for Infocomm Research (A*STAR)</b> <i>Software Engineering Intern</i> <ul style="list-style-type: none"><li>• Developed a visualization dashboard and enabled Golang-based EdgeXFoundry, an open-source IOT platform, to monitor real-time data from industrial systems</li><li>• Reverse-engineered a Windows sensor application to extract data and replicate it on Linux-based embedded systems using Python, Wireshark and MQTT listeners</li><li>• Established IPV6 connections between a SmartMesh IP network and the Internet using a low power border router</li><li>• Tech Stack: Golang, Python, JavaScript, EdgeXFoundry, Wireshark, SmartMesh, MQTT</li></ul>	Singapore

## Scholastic Achievements/Extracurricular Activities

Aug 2019 – Present	<b>NUS Faculty of Engineering</b> Student Ambassador	Singapore
Aug 2019 – May 2020	<b>DJI RoboMaster Core Team</b> Member	Singapore
Aug 2018 – May 2020	<b>Ridge View Residential College</b> <ul style="list-style-type: none"> <li>Part of the Organizing Team for the Special Olympics Swim Meet</li> <li>Represented the college in the Inter-College games for badminton</li> <li>Participated in multiple volunteering activities like coastal clean-ups and charity events</li> </ul>	Singapore
Jan 2019 – Jul 2019	<b>NUS Faculty of Engineering – Freshman Orientation Week</b> <ul style="list-style-type: none"> <li>Developed and organized activities to familiarize incoming freshmen with NUS module registration system</li> </ul>	Singapore
Aug 2018 – Apr 2019	<b>Electrical &amp; Computer Engineering Club</b> <ul style="list-style-type: none"> <li>Project Director for Industrial Attachment visits to externally-sourced companies</li> </ul>	Singapore

## Skill Sets & Proficiency

<b>Programming</b>	Python Java JavaScript C/C++ Golang Verilog	Proficient Proficient Proficient Intermediate Basic Basic
<b>Web</b>	HTML5, CSS React.JS Node.JS Ruby on Rails	Intermediate Intermediate Intermediate Basic
<b>Database</b>	PostgreSQL MongoDB	Proficient Basic
<b>Artificial Intelligence/ Data Analytics</b>	NumPy Pandas OpenCV	Basic Basic Basic
<b>Operating Systems</b>	Windows 7/10 Linux	Proficient Intermediate
<b>Version Control</b>	Git	Proficient
<b>Hardware</b>	Raspberry Pi Arduino Cortex-M3 Basys3	Intermediate Intermediate Intermediate Basic
<b>Office Productivity</b>	Microsoft Word, PowerPoint Microsoft Excel	Proficient Intermediate
<b>Multimedia</b>	Adobe Premiere Pro	Basic
<b>Non-technical Skills</b>	Project Management Software Documentation	Intermediate Intermediate