

ALEX NGUYEN

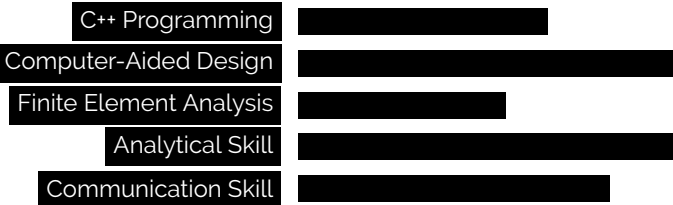
Aspiring Engineer

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SUMMARY

A talented and experienced student, aspiring to become an engineer, that possess a passion for innovation and problem-solving. Has a solid understanding of methodologies, and excels both as an individual contributor and part of a team. Driven by the limitless possibilities of technology, they look forward to leveraging their skills and expertise to develop impactful solutions.



EXPERIENCE

- 2024 – Present **Team Captain** **SSIS High School VEX Robotics Club**
Lead a team of 6 members. Experimented with Monte Carlo Localization and Kalman Filters to ensure accuracy and consistency of autonomous in 100% of Matches. Anodized our aluminum and dyed our plastic to match our team's color scheme. Won a Judged Award at Formosa Taipei, Vietnam Southern Nationals—which qualifies to World Championships—and Vietnam Northern Nations; Ranked 1st in Northern Nationals.
Programming / Leadership
- 2023 – 2024 **Co-Captain & Treasurer** **SSIS High School VEX Robotics Club**
Started a High School VEX Robotics Team. Programmed an autonomous using odometry and PID, achieving the 2nd highest score (142) in the Vietnam. Used KeyShot to create detailed robot renders for marketing. Won a Judged Award at both Vietnam Southern Nationals and Vietnam Northern Nationals; Won Tournament Champion at Vietnam Southern Nationals.
Programming / Analytical Thinking
- 2022 – 2023 **Team Captain** **SSIS Middle School VEX Robotics Club**
Founded the first Vietnamese Middle school VEX Robotics Team of Vietnam. Learnt how to used CAD for designing. Won a Judged Award at Vietnam Nationals against 32 High School Teams. Archived maximum score and ranked 2nd out of 400 teams in a virtual programming competition.
Programming / CAD / Leadership

PROJECTS

- 2024 – 2025 **Composite Bike Storage**
Used advanced resin composite manufacturing methods to create an Aerodynamic Box out of fiberglass which weighs half of its injection mounted counterpart.
Manufacturing / CAD
- 2023 – 2024 **DIY Keyboard**
Learnt how to design electrical schematics on KiCAD and build Printed Circuits Boards. Used an Atmega32U4 Microprocessor and a diode matrix to create a 42% Keyboard PCB.
Programming / Electrical Circuits

EDUCATION

- 2018 – 2023 **Pre-College Program** **University of Southern California**
Attended a summer engineering program, collaborating in a team of 5 to complete a multitude of tasks in short time frames. Wrote 5 research papers and built 12 different projects. I primarily: Used truss theory, free body diagrams, and finite element analysis to design, build and test a 6ft bridge using balsa wood planks that supported a dynamic load of 26 bricks; Studied aerodynamic forces and used simulations to create a stable yet strong model rocket using solid fuel engines, which successfully reached 800 feet.
- 2020 – 2027 **Secondary Education** **Saigon South International School**
Learned the foundations for academic studies.
Standardized Test Scores: PSAT 9: 1340/1440; PSAT 10: 1450/1520; SAT: 1470/1600; High Honor Roll for Grade 9 & Grade 10 and Academic Excellence Award for Robotics and Engineering Technology.