

Nishant Aswani

COMPUTER ENGINEER

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Education

New York University Abu Dhabi (NYUAD)

Abu Dhabi, UAE

B.SC. IN COMPUTER ENGINEERING | GPA: 3.869

Aug. 2017 - May 2021

- Relevant Coursework: Object-Oriented Programming | Data Structures & Algorithms | Machine Learning | Communication Networks | Parallel Computing | Probability & Statistics | Linear Algebra | Multivariable Calculus | Engineering Ethics | Open Source Software Development

Experience

Haloship, NYUAD

Abu Dhabi, UAE

TEAM LEAD

June 2020 - Present

- Engineering a premium, open-sourced high-powered rocket with custom electronics and software, all supplemented with clean documentation
- Designing a STM32F4-based avionics PCB replete with state-of-the-art peripherals (GPS, orientation sensors, power management, etc.) running our custom flight software
- Developing a software-in-the-loop testing extension for OpenRocket to run rigorous flight simulations to test our custom avionics

Scanfly

New York, USA

SOFTWARE ENGINEER INTERN

Feb. 2020 - Aug 2020

- Investigated and implemented a popular computer vision model for the purpose of automating a manual task and improving customer satisfaction
- Constructed a data pipeline allowing images to be seamlessly annotated, stored in cloud storage, and accessed for model training

Design & Innovation Course, NYUAD

Abu Dhabi, UAE

TEACHING ASSISTANT

Jan 2020 - Feb 2020

- Provided daily technical assistance to a group of 72 freshman engineers on intense projects involving microcontroller programming, parametric CAD, and PCB design
- Engaged in conversations about project ideation & development, along with conversations about engineering thinking

Composite Materials and Mechanics Laboratory, NYU Tandon

New York, USA

SUMMER RESEARCH ENGINEER

Jun. 2019 - November 2019

- Co-developed a Python software that verifies the authenticity of CAD and tessellated digital models, capable of detecting tampering with model geometry
- Developed a registration challenge for NYU Tandon's Hack3D competition involving elements of file forensics, 3D graphics programming, and reverse engineering, for 15+ participating teams
- Collaborated with CSAW 2019 and the National Science Foundation (NSF) to develop a final round challenge for 5 finalist teams, with prizes up to 1000 USD

Narrative Technologies and Spatial Installation (NTSI) Lab

Abu Dhabi, UAE

STUDENT RESEARCH ENGINEER

Oct. 2017 - Aug. 2019

- Engineered a concept-clock consisting of a micro-controller, motors, and a pulley-system prototyped using parametric CAD
- Integrated the lab space with wifi-enabled switches to control LED strips with voice control, API commands, and the MQTT protocol
- Learned wood-working and rapid-prototyping skills while building and repairing scale models

Skills

Engineering

Object-Oriented Design, Data Structures, Project Planning & Documentation, Linux-based Architectures, sklearn, Keras, Tensorflow, Git, Parametric CAD, Electronics Design, Django Development

Computing

C++, Python, Verilog, MATLAB, SQL, PHP, LATEX

Spoken Languages

English (Native), Mandarin (Fluent), Hindi (Fluent)

Interests

Home automation | Public train systems | Designing playlist cover art for curated playlists | Playing the flute | Capturing flags