Yohann Panthakee

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British Citizen & Willing to relocate

KEY ACHIEVEMENTS

- Young, enthusiastic motorsport engineer who has had valuable work experience at Dassault systems, Bentley Motors, Ricardo Airbus and McLaren Racing
- Achieved the highest level of certification as EXPERT in SolidWorks for Mechanical Design
- Presented with the "Motorsport UK Best presentation" by the Motorsport Steering Committee and industry experts at Cranfield University Group Design Project Event.
- Led design engineer for my MSc group design project
- Selected to present at an IET event as part of the Formula Student AI team on current topics of AI & Neural Networks and electrification in motorsport
- Led the development of the computer vision system and performance aspects of the FS AI car
- Developed an extensive CAD portfolio in my free time (*Online Portfolio*)
- Contributor to the GrabCAD community with 50+ Models/Assemblies (*GrabCAD*)
- Created an engineering discussion group on GrabCAD "Cars and Automotive Design "in 2018

EDUCATION

MSc Advanced Motorsport Engineering (70%): Cranfield University (October 2021 – September 2022)

- Group Design Project: Endurance Racing Motorcycles for the Future
  As the lead design engineer for a group design project focused on an alternative-fuelled endurance racing bike, I collaborated with a team of 11 professionals across various departments. My role involved co-designing each component with purpose and efficiency, enabling seamless integration of fast-paced updates within the assembly, akin to everyday motorsport.

- Individual Thesis: Lap by Lap Analysis of the Racing Line for Driver Improvement Using Deep Learning Image Segmentation and Computer Vision Techniques

BEng (Hons) Automotive Engineering (1st Class): Coventry University (September 2018 – May 2021)

- Group Design Project: Front Suspension Redesign for a High-Performance Electric Sports Car
  and led the reverse engineering 3D scans to solid models using CATIA. Also collaborated with the vehicle dynamic team member to design and implement the updated geometry and used Ansys for the FEA analysis to validate our design to meet the design and stress requirements

- Individual Thesis: Cost function-based planning algorithm for the Formula Student AI competition

TRACKSIDE EXPERIENCE

FORTY40 Racing: Race Mechanic (4 Race Weekends)

Forty40 Racing is a team competing in two different 750 Motor Club competitions, 116 Trophy and Roadsports Series

- Assisted race mechanics in trackside roles including pre-race checks and setup changes
- Part of the pitstop crew keeping the car cool and helping on the pit wall
- Currently in the workshop preparing stock cars for the racetrack

Formula Student Artificial Intelligence Competition (February 2020 – July 2021)

- Developer of the path planning and Computer Vison system used in the competition
- Co-authored all the presentations for the Static events

ENGINEERING EXPERIENCE

Perrinn: *Project Page* (February 2023 – Present)

- Developing a marketing scale model of the PERRINN 424 electric hypercar
- Conceived and designed the model leveraging knowledge of additive manufacture to make informed design decisions
- Researched and communicated with suppliers

Virtuosi Racing: Thesis Project (June 2022 – September 2022)

- Researched the application of Deep Learning using python to analyse race data and onboard video
- Build a custom neural network to predict the car's lateral position from a monocular camera setup

Dassault Systems: Quality Assurance Intern (July 2019 – August 2019)

- Collaborated with the quality assurance team for Solidworks Electrical Products
- Formulated test plans, reporting, and validation of bugs in Solidworks software
- Communicated and worked with other QA engineers in UK and US
- Utilised my free time to successfully complete numerous SolidWorks Expert and Professional certifications

Bentley Motors: Whole Vehicle Engineering (August 2018 - August 2018)

- Applied problem solving skills to the production line
- Gained practical experience as well as deepened my knowledge in additive manufacturing
- Presented a solution to improve time efficiency in the workshop

Ricardo: Whole Vehicle Simulation (July 2018 - July 2018)

- Introduced to MATLAB/Simulink
- Created metal castings using PTC Creo Surface design
- Gained a deeper understanding of the principles for "Design for Manufacture"

Airbus: Engineering Structures (July 2017 - July 2017)

- Gained experience in metal additive manufacturing and "Design for Manufacture" concepts
- Learnt about low/high cycle fatigue testing of wing structures and components
- Achieved Silver level Industrial Cadet certification during work experience at Airbus

McLaren Racing: (June 2017 - June 2017)

- Introduced to CATIA V5
- Participated in pre-race testing using the driver in the loop simulator
- Discussed my EPQ Research Project with the design engineers to receive constructive feedback

SOFTWARE SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

- Software Skills: Self-taught in Python in my free time and applied it to personal projects in artificial intelligence and data processing. A confident user of the MS Office suite with an ECDL Certification in Advanced spreadsheets. Proficient knowledge of ANSYS products, Altair HyperMesh and CATIA
- Individual Interests: Learning about the latest developments in the engineering world with specific interest in Artificial intelligence and motorsport engineering. Also, I am a keen cook who likes to experiment with new recipes and surprise friends with gourmet meals
- Sport: Was a competitive swimmer (2008-2011), competing in The Middlesex Championships and the London Regionals. Also competed up to National level water polo from 2012-2013 and presently keep fit with swimming when I can