Bahauddin HABIBULLAH

Mechanical Systems Engineer

Self-driven individual with advanced skills and knowledge in systems design engineering and electronics. Having excellent leadership and communication skills to work in a collaborative team. Really excited to give a big contribution to future innovation.

Grenoble, France
bahauddin.h@outlook.com
24 years old
Indonesian
Single

Work experience

R&D Engineer — HelmDa Systems Tallinn, Estonia

From February 2022 to June 2022

- Developed Galeax-A - a headgear device that provides AI-based human assistance for navigation, guidance, and visualization.
- Developed Capsel - a wearable device to help localize the area, manage resources, and monitor the health condition of the construction workers/ miners.

Department Research Assistant — Kazan Aviation Institute Kazan, Russia

From October 2020 to July 2021

- Worked with professors and docents in research activities in the field of aerial vehicle building.
- Attended conferences, participated in competitions and published scientific journals and reports.
- Worked with CNC laser cutting machine for the prototype building. Took a part in the Student Design Bureau (Department of Aircraft Building).
- Managed engineering masterclasses.

Innovator - Project Owner — Skolkovo Technopark Moscow, Russia

From February 2021 to June 2021

- Managed and authored a project about an AI-based industrial drone with transformable arm modules and a portable controller box. My tasks included authoring the patent application (RU 204990 U1), designing the AI algorithm and control systems, and conducting tests & simulations.

Design Engineer — Airbus Poland S.A Warsaw, Poland

From February 2019 to March 2019

- Participated in review, change controls, design & integration of CAD assemblies according to EASA part 21.
- Maintained and converted existing 2D drawings /3D CAD (Computational Aided Design) models.
- Worked with CATIA (CAD), Nastran-Patran & Hypermesh (FEM), and ANSYS (CFD), to design and analysis the aircraft parts.
- Studied and analyzed structural parts of Airbus C295 and PZL-130 Orlik

Manufacturing Engineer — Center of Composite Technologies Kazan, Russia

From September 2018 to December 2018

- Assisted the lead engineers in the production and manufacturing process of composite materials. Worked with automatic composite braiding machines: KUKA, Herzog, (Machines/ robots operator).
- Participated in the product test and validation.
- Stored, sorted, maintained, and fixed the production tools & equipment.

Interests

Volleyball

Photography

Travelling

Languages

Indonesian

English

French

German

Russian

Computer skills

Design Engineering (CAD)
CATIA V5, Solidworks, Siemens NX, Keyshot, Fusion 360

Simulation & Analysis (FEA, CFD)
Nastran-Patran, ANSYS

Additive Manufacturing
Cura 3D Printing, CNC Machine

Electronic & Circuit Design
EasyEDA, Electronic Workbench

Programming
Python, Java, C#, HTML, CSS, JavaScript

Robotics & Control Design
Matlab - Simulink, ROS, Arduino

Office & Management
Microsoft Office, Hubspot, Mailchimp, Zoho, Trello

Operating Systems
Windows, Linux Ubuntu

AI - Machine Learning
OpenCV, OpenVINO, YOLO, TensorFlow, Jupyter Notebook, Google Colab

Education

M2. Mobile, Autonomous, and Robotic Systems — Grenoble INP - Ense3 Grenoble, France

Since September 2022

Following courses in embedded systems, mobile robotics, artificial intelligence/ machine learning, smart transportation, and robust control. Currently doing projects in the field of autonomous aerial vehicles.

B.Eng. Aeronautical Engineering — Kazan National Research Technical University Kazan, Russia

From September 2017 to August 2021

Graduated with a 4.38 out of 5.00 GPA (240 ECTS). Completed courses in mechanical engineering, strength analysis, manufacturing technologies, applied informatics, computer science, computer modeling, structural and aerodynamics analysis, flight stability & control, and mechanics. During the study period, I took additional courses in machine learning and got involved in many projects about drone building.

Projects

Obstacle Avoidance Algorithm for Swarm Drones based on the Voronoi Tiiling — Grenoble INP - Ense3 Grenoble, France

Since October 2022

Drone with Transformable Arm Modules and Portable Controller Box — Skolkovo Moscow, Russia

From February 2021 to June 2021

Medium Range VTOL UAV — Kazan Aviation Institute Kazan, Russia

From December 2020 to June 2021

Drone for Agriculture — Russian United Aircraft Competition Moscow, Russia

From November 2020 to December 2020

100 Best Projects (Semi-Finalist)

New Concept of Smart Window for Urban Apartment — Lexus Design Award Russia Moscow, Russia

From November 2020 to January 2021

Top 10 Designs (Finalist)

Organization

Member of Indonesian Student Association in France
2022 - 2023

Student Member in Royal Aeronautics Society
2020 - 2021

Organization Committee of Indonesian Student Association in Russia
2017 - 2021

Assets

Leadership
Being active in some organizations and voluntary activities

Teamwork
Has successfully delivered 5 big projects on time and on budget

Communication
Able to speak in 4 foreign languages

Patent

RU 204990 U1
Patent for Utility Model - Drone Transformer (AI-based Industrial Drone with Transformable Arm Modules and Portable Controller Box)

Awards

MIAI@Grenoble Scholarship Awardee
2022 - 2023

Russian Government Scholarship Awardee
2017 - 2021

Finalist (Top 10 Projects) in Lexus Design Award Russia
2021

Semi-finalist in the Russian United Aircraft Competition
2020

Certificates

Catia V5 with a Fully Practical Approach Udemy Learning

Google IT Automation with Python (Crash Course Python)

Introduction to IoT by Cisco Academy

in @Bahauddin Habibullah