Ömer Faruk Köklükaya

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Education

- **Middle East Technical University** — Ankara, Turkey
  Aerospace Engineering; 4th Year, CGPA: 2.49 — *Sept 2019 - Ongoing*
  Courses: *Fluid Mechanics, Numerical Methods, Heat Transfer, Aerodynamics, Applied Elasticity, Aerospace Structures*

Skills Summary

- **Languages**: C/C++, Fortran, MATLAB, LaTeX
- **Softwares**: Catia, Siemens NX, SolidWorks, Fusion 360, xflr5, MS Excel, Illustrator

Experience

- **METU Aerospace Society**
  Head of Communication — *Jan 2020 - March 2021*
  - Responsible for interactions, announcements within the community and social media accounts of the community.
- **Airfighters.com**
  Editor and Representative — *Nov 2021 - Ongoing*
  - Followed and shared the world aviation news on a weekly basis..
  - Designed the graphics needed for the page.
  - METU representative of the page.
- **Turkish Aerospace Industries (TUSAŞ)**
  Long Term Intern — *Dec 2021 - May 2022*
  - Worked on the modeling of structural parts.
  - Used mostly shape design, part design and assembly workbenches of Catia.
  - Contributed to modification projects by making detailed research and reports.
  - Researched, modeled and finished a concept modification study.
- **5. Main Maintenance Factory of Turkish Armed Forces**
  Intern — *July 2021 - Aug 2022*
  - All phases of the helicopter maintenance at the depot level, especially the main body, engine and composite, were observed.
  - Did the disassembly and assembly of the body parts of different types of helicopters.
  - Contributed to the installation of missile warning systems on relevant helicopters.
  - Performed a test flight with a Sikorsky S-70 Helicopter after maintenance.
- **TÜBİTAK Space Technologies Research Institute (TÜBİTAK UZAY)**
  Intern — *Aug 2021 - Sep 2022*
  - Studied in detail on spacecraft orbital and attitude dynamics.
  - Made orbital modeling and visualization using right ascension and declination data by using MATLAB.
  - Contributed technical observations at advanced satellite production and control facilities of TÜBİTAK UZAY.
  - Participated in presentations of future projects of the Institute.

Projects

- **UAV for Teknofest International Unmanned Aircraft Competition 2021 - TÜBİTAK**:
  - Member and pilot of the METU Airbenders team.
  - Designed various sizings for a UAV under 4 kg and its payload system.
  - Studied for the image processing code to detect the release area during the mission.
  - Prepared the fully autonomous control code using px4 autopilot.
- **VTOL UAV for METU VTOL Competition 2020 - Boeing**:
  - Member of the METU Airbenders team.
  - Designed various sizings for a VTOL(vertical take-off and landing) UAV under 4 kg.
  - Performed aerodynamic analysis mainly using XFLR5.
  - The UAV was designed as a quadplane and to carry payload dangling at the end of a 1 meter long rope.
- **UAV for Teknofest International Unmanned Aircraft Competition 2020 - TÜBİTAK**:
  - Member and pilot of the HUMA team.
  - Designed main frame, landing gear, and payload system by using Fusion360 for a quadcopter UAV under 4 kg.
  - Manufactured the frame with CNC using aluminum composite and other components with 3D Printer using PLA.
  - Performed test flights and then made optimizations.
- **International Space Apps Challenge 2020 - NASA**:
  - Developed the basic space game named Fight For Future using Unity and Blender with the team.