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Mohammad Ebrahimi | Resume

- Status: Snior year Aerospace Engineering Bsc Student
- Language: English, Dutch, and Persian
- Location: Delft, Netherlands
- Born: 7 Nov 2001 (21 years old). Delft, Netherlands.
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Education

BSc Aerospace Engineering (**Delft University of Technology**) Sept 2021 - 2024

- Final year Bsc student.
- Start of program: 2021 - End: 2024

Minor: Engineering with Artificial Intelligence

Main Projects / Experiences

Delft Mercurians (RoboCup Small Size League) - Ongoing - **[Page Link]** 16 total members

- The first ever Robocup team from TU Delft, aiming to compete in Leiden 2024 for the first time.
- Responsible for designing and manufacturing different critical subs-systems from the ground up.
- Rresponsible for laying a solid groundwork for future teams through comprehensive documentation of my contributions as a Mechanical engineer along with rest of the hardware team's contributions (5 members) which includes instructional materials, technical drawings etc.

Pre-Rotation Tire Extensions for Airplane Landing Gear (2 months) - Done Personal

- Participated in the Impact contest, an innovation competition open to all TU Delft students.
- As a plane spotter, I observed that stationary airplane wheels during landing have to momentarily skid, which produces rubber smoke that harms the tire and the runway. I aimed to reduce rubber smoke from airplane landings by introducing pre-rotation tire extensions.
- Mentored by two Fokker head engineers which whom I came into contact during the competition. Eventually it was collectively determined that pre-rotation tire extensions, were not feasible now, since the aviation industry is rather slow, heavily profit driven and using new rubber tires is simply cheaper than certificating such device. Despite this, the pursuit improved my research & critical-thinking skills. [State: Finished/on pause]

Research on CrazyFlie platform (6 months) - Ongoing - **[Github link]** 2 people

- Conducting research concurrently with my academic studies under supervision of a Phd student.
- The research, as of now, concerns controlling drones by voice commands using an onboard-microphone (on XIAO ESP32S3 board for now).

RSA committee member (Robotics Student Association) - **[Page Link]** -

- As part of the *Hackathon committee*, our team is responsible for organizing hackathons to foster innovation among TU Delft students and bring like minded people together.
- As part of *WoCo (Workshop Committee)*, our team is responsible for maintaining and expanding the workshop's tool inventory and implementing safety regulations and teaching members how to use different tools. *In summary: making sure the workshop place and the building do not blow up.*
- Active member of the RSA's flagship project, Delft Mercurians Robocup team.

SKILLS

Engineering (Programming, CAD, & simulations)

- **Python [**Proficient in performing numerical & general data analysis as well as DL & ML algorithms**]**
  -> (in context of AI**) [**Proficient in using common ML frameworks (Pytorch).
  Furthermore, proficient in Object Oriented Programming and using common engineering librarries**]**
- **CAD[**Proficient in 3DEXPERIENCE and SolidWorks along with Ansys SpaceClaim and DesignModeler**]**
- **Structural Analysis and FEA [**Ansys Mechanical **]**

General (Writing, documenting, & collaborative working)

- **Technical writing [**Writing professional technical and general reports**]**
- **Oral presentation [**Able to present ideas and findings effectively**]**
- **Latex [**Used for all professional report/documentation I've written the last 3 years (incl this CV)**]**
- **Excel [**Used a lot for basic data collection/analysis tasks**]**
- **Github and Git [**Familiar, for collaborative working on different projects**]**
- **Fusion360 and PrusaSlicer [**Proficient; for 3D printing**]**