



SHAH FAHAD

BS FORESTRY · CLIMATE CHANGE SPECIALIST · SBBU SHERINGAL

✉ dshafahad@gmail.com

☎ +92 335-5068372

📍 North Waziristan, Pakistan

🌐 linkedin.com/in/shafahad-dawar-0537383a3

🌐 shahfahaddawar.netlify.app

UAV Photogrammetry · SfM Processing · Forest Inventory · GIS · ITD & DSM Generation

EDUCATION

BS Forestry (4-Year)

SBBU Sheringal, Dir Upper
2021 – Dec 2025 · Climate Change

F.Sc Pre-Medical

Islamia School & College
2019 – 2021 · Grade: 79.1%

Matric (Science)

Governor's Model School
2017 – 2018 · Grade: 58.5%

TECHNICAL SKILLS

UAV & Drone Technology

DroneDeploy **Advanced**
Agisoft Metashape **Advanced**
SfM Processing **Advanced**

GIS & Forest Modeling

GIS Software **Proficient**
ITD / DSM Creation **Proficient**
Point Cloud Gen. **Proficient**

Data & Scientific

SigmaPlot **Proficient**
MS Office Suite **Advanced**
Scientific Writing **Advanced**

LANGUAGES

Pashto Native
Urdu Native
English Fluent — B2

PERSONAL DETAILS

Nationality: Pakistani
Gender: Male
DOB: 14 March 2004
Place of Birth: Miranshah

REFERENCES

Mr. Munawar Zeb

Research Supervisor, SBBU
munawarzeb84@gmail.com

Dr. M. Nawaz Rajpar

Head of Forestry Dept, SBBU
rajparnawaz@gmail.com

Available upon request

PROFESSIONAL SUMMARY

UAV and Remote Sensing specialist with a BS in Forestry and a focus on Climate Change, bringing proven field research experience from the mixed Oak-Conifer forests of Patrak Valley, Dir Upper. Skilled in drone-based SfM processing for individual tree detection, DBH measurement, and canopy height modeling. Proficient in Agisoft Metashape, GIS, and SigmaPlot — committed to driving data-led conservation across Pakistan's mountain forests.

RESEARCH PROJECT

Forest Working Plan Development — Patrak Valley Mixed Forest

Field Research · Patrak Valley, Dir Upper, KPK · 35.1823°N, 71.9654°E

Thesis: Estimating Individual Tree Count, Height & DBH Using UAV Imagery and SfM Processing

★ **Key Achievement:** High-accuracy individual tree detection across mixed mountain forest terrain

- **Core Research:** UAV imagery + Structure from Motion (SfM) for precise forest structural analysis
- **Commercial WC:** Sustainable timber operation assessments and economic productivity analysis
- **Protection WC:** Biodiversity conservation planning — mapping of ecologically sensitive zones
- **Community WC:** Local participatory management strategies integrated with community needs
- **Technical Tasks:** Forest inventory, species composition, silvicultural recommendations for Oak and Conifer forests

ACADEMIC PROJECTS & FIELD EXPERIENCE

BS Forestry — Research & Practical Fieldwork

2021 – Dec 2025

Shaheed Benazir Bhutto University, Sheringal, Dir Upper

- Executed drone photogrammetry campaigns via DroneDeploy — capturing high-resolution UAV imagery for individual tree detection (ITD)
- Processed point clouds and generated Digital Surface Models (DSM) and canopy height models using Agisoft Metashape SfM pipeline
- Conducted all three working circles: commercial timber assessment, biodiversity protection, and community participatory management
- Produced detailed environmental reports, scientific documentation, and forest species composition analysis for Patrak Valley

CORE COMPETENCIES

UAV Photogrammetry

Structure from Motion (SfM)

Individual Tree Detection

Forest Inventory

Digital Surface Models

Canopy Height Modeling

Biodiversity Assessment

Climate Change

GIS & Spatial Analysis

Scientific Documentation

Sustainable Forest Management

Remote Sensing

■ **Research Portfolio:** shahfahaddawar.netlify.app — Interactive UAV & GIS research showcase

Commercial Circle

Protection Circle

Community Circle