Liu Purnomo, S.Kom

GIS Specialist | Drone Mapping, Remote Sensing & WebGIS

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Online profile

PROFESSIONAL SUMMARY

GIS and drone mapping specialist with more than a decade of experience in aerial mapping, participatory mapping, and GIS training across Indonesia. Started as GIS expert and trainer for Keling Kumang Group projects in West Kalimantan, and has since been assigned as remote sensing and aerial mapping expert to law enforcement field teams of the Ministry of Environment and Forestry and the Ministry of Forestry. Founder and director of PT. Remote Pilot Indonesia (remotepilot.id), a drone and mapping training company with 6,000+ students to date. Has trained government agencies, plantation companies, and village communities in GIS and ArcGIS, GPS and participatory mapping, and drone survey mapping. Builds geospatial software: Drone Mapper, a photogrammetry and GIS desktop app with its own C++ orthophoto engine, and the GIS workspace of drone.co.id.

EDUCATION

Universitas Pamulang — **Tangerang, Indonesia**
Master of Informatics Engineering — *2026 - Present*

Hacktiv8 — **Jakarta, Indonesia**
Full Stack JavaScript Immersive Program — *Jan 2023 - Jun 2023*
Score: 97/100, Teacher's Awards Predicate (score > 95)

STMIK Antar Bangsa — **Tangerang, Indonesia**
Bachelor of Informatics Engineering (S.Kom.) — *Sept 2020 - Sept 2024*
GPA: 3.44/4.00, Very Satisfactory

CORE SKILLS

GIS & Mapping Software ..... Agisoft, ArcGIS, PCI Geomatics, Global Mapper

WebGIS & Geospatial Development ..... Leaflet, MapLibre, Cesium, Turf.js, GeoTIFF / PROJ, COLMAP (photogrammetry)

Drone Platforms ..... DJI Multirotor (All Series), Fixed Wing UAV, VTOL UAV

PROFESSIONAL EXPERIENCE

PT. Remote Pilot Indonesia — **Jakarta, Indonesia**
Director & Founder — *Dec 2022 - Present*

- Founded and lead a drone and mapping training company (remotepilot.id): drone pilot certification and aerial mapping programs, with the curriculum, regulatory compliance, and operations.

- Trained 6,000+ students to date through drone pilot and drone mapping programs for government agencies, companies, and individuals across Indonesia.

Ministry of Forestry (Kementerian Kehutanan) **Riau, Indonesia**
Expert, Drone & Aerial Mapping (Ahli Drone dan Pemetaan Udara) *Oct 2026*

- Drone and aerial mapping expert on Directorate General of Forestry Law Enforcement field teams, supervising corporate compliance with administrative sanctions and with forest area use permits (PPKH) in Riau Province.

Ministry of Environment and Forestry (KLHK) **North Maluku, Indonesia**
Assistant Remote Sensing Expert (Asisten Ahli Penginderaan Jarak Jauh) *May 2024*

- Remote sensing support for the Directorate General of Law Enforcement in verifying an environmental dispute over alleged river pollution from an industrial operation in Central Halmahera.

CV. Galeri Angkasa Sejahtera **West Kalimantan, Indonesia**
Director & Drone Instructor *Jun 2018 - Dec 2021*

- Founded a drone services company delivering aerial mapping, surveying, and pilot training; trained 4,000+ pilots in total.
- Secured contracts with government ministries, state-owned enterprises, and private companies across Indonesia.

Keling Kumang Group **West Kalimantan, Indonesia**
GIS Expert & Trainer (Project-based) *2016 - 2018*

- Built the GIS and drone mapping capacity of the Keling Kumang Group mapping team, from drone mapping and monitoring training to a GIS Training of Trainers workshop.
- Trained independent oil palm smallholders in participatory mapping in Sekadau and Melawi (with Solidaridad), and village teams in GPS-based participatory mapping in 7 villages of Tempunak Hulu (with MCA-Indonesia).

Perkumpulan Sampan Kalimantan **West Kalimantan, Indonesia**
Head of IT & UAV Program Officer *Mar 2013 - Sept 2016*

- Operated UAVs for aerial mapping, photogrammetry, and field documentation in support of conservation research.
- Built the organization's digital presence from scratch, growing its online following by 3× in two years.

SELECTED PROJECTS & PLATFORMS

Drone Indonesia *Tech: Next.js, Prisma, PostgreSQL, Socket.io, Midtrans, Leaflet, Cesium, Turf.js*
Platform for every drone pilot in Indonesia

Since 2021, drone.co.id has brought 3,500+ registered remote pilots together: portfolios, LMS and QR certificates, DJI flight-record replay in 3D, airspace and NOTAM checks from the official AIP, live ADS-B radar, a GIS workspace, flight planning straight to DJI controllers over WebUSB, realtime chat and Midtrans payments. One API also powers the mobile app and Drone Mapper. SEO built in with JSON-LD in 27 schema.org types.

drone.co.id: https://drone.co.id

Drone Mapper *Tech: C++, OpenMP, GeoTIFF / PROJ, COLMAP, ONNX, Electron, React, MapLibre*

Photogrammetry and GIS desktop app, own C++ engine

Turns drone photos into an orthophoto, a DSM, and a print-ready map in one click. I wrote the occlusion-aware orthophoto engine in C++ (GeoTIFF, PROJ, OpenMP), GCP adjustment with a Helmert fit, satellite co-registration, Sentinel-2 super-resolution with ONNX, and BIG/KLHK map layouts exported as GeoPDF. Ships for macOS (Developer ID signed) and Windows, with plans sold through drone.co.id.

Download: https://remotepilot.id/drone-mapper

Documentation: https://drone.co.id/drone-mapper/docs

PUBLICATIONS

Drone *CV. Diva Pustaka, 2025*

ISBN:978-634-7600-71-4 *Purbalingga*

Covers the fundamentals of drone technology: history, aerodynamics, flight principles, and control systems.

The Remote Pilot *CV. Diva Pustaka, 2026*

ISBN:978-634-7600-76-9 *Purbalingga*

Aviation discipline and airmanship for remote pilots, covering the mindset that separates safe operators from true professionals.

Seni dan Filosofi Penerbangan Drone *Adab Indonesia Grup, 2026*

ISBN:978-634-276-215-8 *Indramayu*

Professional drone operations: regulations, ethics, situational awareness, and in-flight decision-making.

DIGITAL PRODUCTS

Complete Drone Mapping SOP Bundle lynk.id

12 ready-to-use operational documents for drone mapping workflows

Eight technical SOPs plus four business templates: proposal, pricing guide, work order, and survey report. All in editable DOCX format.

CERTIFICATIONS, AWARDS & CREDENTIALS

Professional

Badan Nasional Sertifikasi Profesi (BNSP) *Jul 2021*

Master Instructor / Trainer

Certificate:8549.2351.0005814.2021

Indonesia Excellent Education for Excellent Life (IEEEL) Institute *Mar 2021*

Certified Public Speaking (CPSP)

Certificate:CPSP-180032021

Dilatih.co *Jul 2022*

Certified Social Media Strategy (CSMSP)

Certificate:3/CSMSP-1/DC/VII/2022

Drone & Aviation

DKUPPU, Kementerian Perhubungan RI *Jun 2022*
Remote Pilot Certificate
Certificate:Sidopi RPC

Federal Aviation Administration (FAA) *Feb 2022*
Part 107 Small UAS Initial
Certificate:1288309-20220218-00451

Federasi Aerosport Indonesia (FASI) *Oct 2019*
Remote Pilot License (RPL) Course
Certificate:05.19.011/RPL/2019

Federasi Aerosport Indonesia (FASI) *Jul 2019*
Basic Remote Pilot (BRP) Course
Certificate:03.19.032/BRP/2019

Asosiasi Pilot Drone Indonesia (APDI) *Jul 2018*
Pilot Drone Certificate
Certificate:Reg. No. 0090-2018

PT Byte Geo Solusi *Aug 2020*
Trinity F90+ Aerial Tactical Mapping
Certificate:QS.IDN: 015.BGS.020

Speaker & Awards

Ministry of Defense, Republic of Indonesia *Jun 2022*
Guest Speaker, National Defense Seminar
Certificate:Credential

Halim Perdanakusuma Air Force Base *Aug 2022*
Guest Speaker, National Defense Training
Certificate:Credential

Batu City Regional Disaster Management Agency (BPBD) *Mar 2019*
Instructor, Drone Technical Training
Certificate:02.B01.KL.422.204.2019

West Kalimantan Bloggers Community *Jul 2016*
3rd Place, SEO Blogger Contest
Certificate:Credential

MTQ, Sekadau Regency *Jan 2010*
1st Place, Fahm al-Quran Competition
Certificate:50/PAN.MTQ-SKD/2009

GIS & MAPPING TRAINING (INSTRUCTOR)

BPDLH - Kementerian Keuangan *Sep 2026*
Hotel 101 Tugu, Jogjakarta *Jogjakarta*
Instruktur Untuk Refreshment Penggunaan Drone untuk Pemetaan dalam rangka Monev program Norway's Contribution on the Implementation of FOLU Net Sink 2030.

Gesit Natural Resources, PT Mandara Prima Nusantara, PT Dinamika Sejahtera Mandiri dan PT Sigma Prima *Jul 2026*
Office PT Mandara Prima Nusantara *Sanggau*
Instruktur Pelatihan Pilot Drone Pemetaan Untuk Gesit Companies

PT. Jasa Marga (Persero) Tbk x Diorama Training *Sep 2025*
Jasamarga Tollroad Command Center *Jakarta*
Instruktur dalam Kegiatan Pemetaan Udara menggunakan Drone Multirotor

BPA Institute x Diorama Training *Sep 2025*
Online Zoom Meeting *Jakarta*
Instructor of Basic ArcGIS Geographic Information System (GIS) Training for Architecture

Diorama Training x PT. Perkebunan Nusantara I Regional 2 *Apr 2025*
Hotel Amaris La Codefien Kemang, Jakarta Selatan *Jakarta*
Instruktur Training Drone Pemetaan dan Arcgis

Politeknik Elektronika Negeri Surabaya *Aug 2024*
Politeknik Elektronika Negeri Surabaya *Surabaya*
Instruktur Pelatihan Drone Untuk Pemetaan

HMPWK Institut Teknologi Indonesia *Oct 2022*
Online Zoom Meeting *Jakarta*
Narasumber dalam Webinar Drone dengan tema Pengenalan Drone untuk Pemetaan

PT. Perkebunan Nusantara IV *Jul 2022*
PT. Perkebunan Nusantara IV *Pabatu*
Instruktur untuk Pelatihan Pemetaan dan Sertifikasi Remote Pilot

Dinas Cipta Karya Provinsi DKI Jakarta *Jun 2022*
Kantor Dinas Cipta Karya DKI Jakarta *Jakarta*
Narasumber dalam pelatihan pengoperasian drone untuk pemetaan

PT Dayamitra Telekomunikasi Tbk (Mitratel) *Dec 2021*
Hotel Amaris, Serpong *Tangerang Selatan*
Instruktur dalam Training Survey Mapping Using Drone

Dinas Bina Marga dan Sumber Daya Air Bekasi *Nov 2021*
Dinas Bina Marga dan Sumber Daya Air Bekasi *Bekasi*
Instruktur dalam Pelatihan Drone Untuk Pemetaan

Private Training *Oct 2021*
Private Training *Semarang*
Instruktur dalam Pelatihan Drone Untuk Pemetaan secara Private

PT Redifined Bangka Tin *Oct 2021*
PT Redifined Bangka Tin *Bangka Belitung*
Instruktur dalam Pelatihan Drone Untuk Pemetaan

Federasi Aerosport Indonesia (FASI) *Sep 2021*
Wisma Aldiron *Jakarta*
Instruktur dalam Pelatihan Mapping dan Sertifikasi BRP FASI untuk Pasukan Misi Pemeliharaan Perdamaian TNI

BPDASHL Jeneberang Saddang, Kementerian LHK *Mar 2021*
BPDASHL Jeneberang Saddang *Tanjung Pinang*
Instruktur dalam Pelatihan Drone Untuk Pemetaan dalam rangka mendukung Rehabilitasi Hutan dan Lahan

PT Agung Prima Nusantara *Jan 2021*
PT Agung Prima Nusantara *Sanggau*
Instruktur dalam Pelatihan Drone Untuk Pemetaan

Penyelenggara Pelatihan *Sep 2020*
Online
Instruktur dalam pelatihan Pemetaan menggunakan drone dengan Aplikasi Litchi

Pusat Keteknikan Lingkungan dan Kehutanan *Mar 2020*
Balai Besar TNGGP *Cipanas*
Instruktur dalam pelatihan Drone untuk pemetaan bagi Staff Kementerian Lingkungan Hidup dan Kehutanan

BPDASHL Jeneberang Saddang *Dec 2019*
Hotel Dalton *Makassar*
Instruktur dalam In House Training Survey Mapping Using Drone

BPDASHL Ketahun, Bengkulu *Nov 2019*
Hotel Santika Bengkulu *Bengkulu*
Instruktur dalam In House Training Penggunaan Drone untuk Pemetaan dan Dokumentasi / Publikasi

BPKH Wilayah III Pontianak *Nov 2019*
Hotel Amaris Serpong *Tangerang Selatan*
Instruktur dalam Training Survey Mapping Using Drone

Balai Pengendalian Perubahan Iklim Wilayah Sumatera (PPI Wil Sumatera) *Oct 2019*
Hotel Swiss - Bell Jambi *Jambi*
Instruktur dalam Training Pengoperasian Drone Untuk Pemetaan dan Monitoring Cadangan Karbon Hutan

Bidang Sumber Daya Air dan Irigasi PUPR Provinsi NTT, BPBD Murung Raya, dan Universitas Trisakti *Oct 2019*
Hotel Amaris Serpong *Tangerang Selatan*
Instruktur dalam Training Survey Mapping Using Drone

Diskominfo Bogor dan PT. Total Bangun Persada *Sep 2019*
Hotel Amaris Serpong *Tangerang Selatan*
Instruktur Untuk Pelatihan Survey Mapping Using Drone

Badan Restorasi Gambut dan Pusat Keteknikan Lingkungan Hidup dan Kehutanan *Dec 2018*
Balai Besar Taman Nasional Gunung Gede Pangrango *Cianjur*
Instruktur dalam training drone untuk pemetaan bertema Pelatihan Akuisisi Dan Analisis Data Presisi

Balai Perhutanan Sosial dan Kemitraan Wilayah Sulawesi *Dec 2018*
Hotel MaxOne Makassar *Makassar*
Instruktur dalam training drone untuk pemetaan bertema Peningkatan Kapasitas Sumber Daya Manusia (SDM)

Administrasi Wilayah Kota Samarinda *Aug 2018*
Kantor Walikota Samarinda *Samarinda*
Instruktur dalam Training Drone for Mapping untuk staff Administrasi Wilayah Kota Samarinda

Kantor Dinas Pertanahan Kabupaten Lampung Tengah *Aug 2018*
Lampung *Lampung*
Instruktur dalam Training Survey Mapping Using Drone Untuk Staff Kantor Dinas Pertanahan Kabupaten Lampung Tengah

PT Ansaf Inti Resource *Jul 2018*
Samarinda *Kalimantan Timur*
Instruktur dalam Training Survey Mapping Using Drone untuk staff PT Ansaf Inti Resource

Dinas Pertanian Kabupaten Serang *Jul 2018*
Serang *Banten*
Instruktur dalam Training Survey Mapping Using Drone untuk Kepala bidang Ketahanan Pangan Dinas Pertanian Kabupaten Serang, Banten

PT. Dinamika Sejahtera Mandiri *Jun 2018*
Toba, Sanggau *Kalimantan Barat*
Instruktur dalam Training Survey Mapping Using Drone untuk surveyor di PT. Dinamika Sejahtera Mandiri

Keling Kumang Group *Apr 2018*
Sekadau *Kalimantan Barat*
Instruktur dalam Training Of Trainer Pemetaan Perkebunan Kelapa Sawit Swadaya

Diorama Training *Mar 2018*
Amaris de Codefine Kemang *Jakarta Selatan*
Instruktur dalam Training survey mapping using drone yang diadakan oleh Diorama Training

Dirjen Pajak, Kementerian Keuangan *Dec 2017*
Resort Darmawan, Sentul *Bogor*
Instruktur dalam Pelatihan Survey Mapping Using Drone untuk Dirjen Pajak, Kementerian Keuangan

Keling Kumang Group dan MCA Indonesia *Jul 2017*
Sintang *Kalimantan Barat*
Trainer dalam Pelatihan GPS Untuk Pemetaan Wilayah Desa Secara Partisipatif di 7 Desa di Kecamatan Tempunak Hulu

Keling Kumang Group dan Solidaridad *Jun 2017*
Sekadau & Melawi *Kalimantan Barat*
Trainer dalam Pelatihan Pemetaan Partisipatif kepada petani sawit mandiri di Kabupaten Sekadau dan Kabupaten Melawi

Keling Kumang Group *Oct 2016*
Tapang Sambas, Sekadau *Kalimantan Barat*
Instruktur dalam Workshop Training Of Trainer Geographic Information System (GIS)

SAMPAN Kalimantan *Aug 2016*
Pontianak *Kalimantan Barat*
Trainer dalam Pelatihan Pemanfaatan Drone Untuk Pemetaan dan Monitoring untuk Tim Pemetaan Keling Kumang Group

SAMPAN Kalimantan & The Asia Foundation *Nov 2015*
Pontianak *Kalimantan Barat*
Trainer dalam Pelatihan Pengoperasian Wahana Tanpa Awak (WTA) untuk pemantauan Degradasi dan Deforestasi serta Pemetaan Wilayah