

Binyin (Patrick) Di

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Katherine
Northern Territory
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SUMMARY

A highly versatile and motivated agricultural professional in agriculture, an avid bibliophile specialising in tropical agriculture and farming systems with a passion for emerging technologies, and a track record in delivering research and extension activities on various topics, including Integrated Pest Management (IPM), Climate-Smart Agriculture (CSA) and Precision Agriculture (PA), having extensive research on crop phenotyping, field data collection and genomics specialising in data analytics and remote sensing by using multiple computer languages and software, rapport with academic, government and industry stakeholders and a career commitment for effective science communication.

AREAS OF EXPERTISE

Farming Systems, Applied Ecology, Spatial Analysis, Data Analytics & Virtualisation

EDUCATION

2025 - Current	Doctor of Philosophy (PhD) Higher Degree by Research CQUniversity, Australia Supervisor: Zhenglin Wang, PhD & Prof Kerry Walsh, PhD AM
2017 - 2020	Bachelor of Agricultural Science (Honours) Plant Science Undergraduate Degree The University of Queensland Supervisor: Prof Scott Chapman, PhD Thesis: <i>The yield prediction of lettuce at an early stage through imaging analysis by the Unmanned Aerial Vehicle (UAV)</i>
2020	Humboldt University of Berlin (Humboldt-Universität zu Berlin) Course: Human Rights Violations in Germany: Gender, Colonial Crimes & Transnational Corporations Coordinator: Karina Theurer, MA
2019	Gadjah Mada University (Universitas Gadjah Mada) Course: Tropical Agriculture Coordinator: Karen Harper, PhD
2014 - 2016	Victorian Certificate of Education Year 11 & 12

PUBLICATIONS

Di, B., Firn, J., Buckley, Y. M., Lomas, K., Pausas, J. G., & Smith, A. L. (2022). Impact of roadside burning on genetic diversity in a high-biomass invasive grass. *Evolutionary Applications*, 15, 790–803. <https://doi.org/10.1111/eva.13369>

RESEARCH

Jan 2020-
Nov 2021

Casual Research Assistant, The University of Queensland

Supervisor: Prof Scott Chapman PhD, A/Prof Andries B Potgieter

Location: Gatton, Queensland, Australia

Projects entitled:

- 1) *INVITA: A technology and analytics platform for improving variety selection* (Project ID: UOQ2003-011RTX)
- 2) *CropPhen: Remote mapping of grain crop type and phenology, Enabling analytics for grain crop monitoring applications - Crop classification and mapping of phenological characteristics* (Project ID: UOQ2002-010RTX)
- 3) *High throughput feature extraction from imagery to map spatial variability* (Project ID: UOQ2003-008RTX)

June 2020-
Dec 2020

Casual Research Assistant, The University of Queensland

Supervisors: Jack Christopher PhD, Yash Dang PhD

Location: Toowoomba, Queensland, Australia

Project entitled: *Subsoil constraint: Improving wheat yields on sodic soils* (Project ID: GRDC UA00159)

Mar 2020 -
Sept 2020

Winter Research Scholar, The University of Queensland

Supervisor: Annabel Smith PhD

Location: Gatton, Queensland, Australia

Project entitled: *Do invasive plants change fire regimes in Australia? The genomic responses of buffelgrass Cenchrus ciliaris L. to fire regimes in central Australia*

July 2019 -
Nov 2019

Undergraduate Researcher

Supervisors: Prof Steve Adkins PhD, Arslan Peerzada PhD

Location: Gatton, Queensland, Australia

Project entitled: *Seed Germination Ecology of African Lovegrass [Eragrostis curvula (Schrud.) Nees]*

TEACHING ASSISTANTSHIPS

Semester 1, 2020 -
Semester 1, 2021

Casual Academic, The University of Queensland

Location: Gatton, Queensland, Australia

Course: AGRC1023 - Applied Mathematics and Statistics

PROFESSIONAL AFFILIATIONS AND SERVICES

Current Memberships:

ACYPI - Australia China Young Professionals Initiative	2022
APEN - Australasia-Pacific Extension Network	2023
Society of Precision Agriculture Australia (SPAA)	2022
Soil Science Australia (SSA)	2023
The University of Queensland (UQ Future Leader)	2020
RAID - Researchers in Agriculture for International Development	2019

Academic Affiliations

HONOURS AND AWARDS

2024	Delegate to the 14 th Australia-China Youth Dialogue (ACYD) in Adelaide Awarded by Australia-China Youth Dialogue
2024	Finalist of Northern Territory Young Achiever Award 2024 Awarded by Awards Australia
2023	Crawford Fund Conference Scholarship Awarded by Crawford Fund NT Committee
2020	Employability Award Awarded by Student Employability Centre, The University of Queensland
2020	Winter Research Scholarship Awarded by Student Employability Centre, The University of Queensland
2019	Short Term Experience Travel Grant Awarded by Student Employability Centre, The University of Queensland for supporting the short-term study experience at the Humboldt University of Berlin.

EMPLOYMENT

March 2024- Current	Cropping Engagement and Adoption Officer <i>The Northern Territory Government</i> Katherine, Northern Territory
February 2023- February 2024	Biosecurity Industry Liaison Officer <i>The Northern Territory Farmers Association Inc.</i> Coolalinga, Northern Territory
November 2021- October 2022	Precision Agriculture Specialist <i>Rocky River Ag Services</i> Crystal Brook, South Australia

CERTIFICATES AND SKILLS

Licences:

- Current driver's licence
- CASA Remotely Piloted Aircraft (RPA) operator accreditation

Applications:

- Microsoft Office Suites: Word/Excel/PowerPoint/Sharepoint (Intranet)/Teams
- DJI Suites: GS Pro, Go Pro
- Flight Processing: Agisoft PhotoScan & Pix4D
- Programming: R, Python, Git, Portable Batch System
- Remote Sensing: ArcGIS & QGIS
- The Agricultural Production Systems Simulator (APSIM)

REFEREES

References are available upon request.