

Pranav S. Kulkarni

Davis, CA, United States

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[LinkedIn](#) | [ResearchGate](#) | [ORCID](#)

Research Interests

Epidemiology | One health | Veterinary Epidemiology | Farm animal health | Animal health Economics | Evidence based Veterinary Medicine | Biostatistics and Operations research

Education

Ph.D.

Wageningen University & research, Utrecht University
01 Oct 2019 - 19 Jan 2024

M.Sc.

Wageningen University & research
04 Sept 2016 – 24 August 2018 (Grade: 7.42/10)

B.V.Sc & A.H.

Maharashtra Animal and Fishery sciences University, Nagpur, India
31 August 2010-22 July 2015 (Grade:7.8/10)

Conferences

ISESSAH 2023,

Helsinki, Finland,
Oral Presentation:
Economic impact of agri-environmental policies on replacement in Dutch dairy cattle
([URL](#))

VEEC Study Day 2022,

Wageningen, the Netherlands
Oral presentation: Dutch dairy farmers' perspectives on culling reasons and strategies
([DOI](#))

Research Experience

October 2023-Present

Postdoctoral researcher • One Health Institute, University of California, Davis

“Wellcome Trust-funded project: Atlas Arena” – EpiPandit Lab

Description: Modelling the climate-driven zoonotic spillover risk of New World Arenaviruses. Combining human risk with changing species distribution models of reservoir rodent species.

Supervisors: Dr. Pranav S. Pandit

Duties: Research resulting in publications, Developing web platform and data library, extension & public dissemination of outcomes, Guest lecturing, code pipeline

October 2019-January 2024

Doctoral researcher • Wageningen University & Research, Utrecht University

PhD Project: “Optimization of replacement decisions in dairy cattle”

Supervisors: Prof.Dr. Henk Hogeveen, Prof.Dr. Mirjam Nielen, Dr. Monique Mourits, Dr. Wilma Steeneveld

Duties: Research resulting in publications, graduate and undergraduate thesis supervision/ assistance, teaching assistance

May 2018-August 2018

M.Sc. Minor thesis • Quantitative Veterinary Epidemiology group, Wageningen University & Research (4 months: 24 ECTS)

Title: “Simulation of density dependent and frequency dependent transmission of environmental pathogens”

Supervisor: Prof. Dr. Mart de Jong

December 2017-May 2018

M.Sc. Major thesis • Animal Breeding and genetics group, Wageningen University & Research (6 months: 36 ECTS)

Title: “Genetic epidemiology of Digital dermatitis in Dutch dairy cattle”

Supervisor: Dr. Piter Bijma

September 2017-November 2017

Research Masters Cluster • Animal Sciences, Wageningen University & Research

Training objectives: Writing grant proposals, formulating project objectives, pitching and brainstorming doctoral thesis ideas

ISESSAH 2022,

Halifax, Canada

Poster presentation:

Survey study: Dutch dairy farmers' perspective on culling reasons and strategies ([DOI](#))

ISVEE 2022,

Halifax, Canada

Oral presentation:

Impact of changes in National agricultural policy on the survival of Dutch dairy cows ([DOI](#))

SVEPM 2021,

Toulouse, France/

Online

Oral Presentation:

Survival analysis to study replacement strategy of Dutch dairy farmers over 10 years with varying agricultural policies

Bursary Award Winner

Other Positions

October 2018-August 2019

Biostatistics consultant/ Vet consultant • Part-time consultancy • Omega Pathology Labs, India

August 2015-August 2016

Private Veterinary Practitioner
• Large Ruminants • Self-Employed
Licensed Veterinary Ambulatory service in state of Maharashtra, India

2011-2015

Undergraduate research assistant • Dept. of Animal Genetics and Breeding, KNP College of Veterinary Sciences, Maharashtra.

Supervisor: Dr. Tejas Shende

Publications

PS Kulkarni, R Haijema, H Hogeveen, W Steeneveld, MCM Mourits (2024) Economic impacts of constrained replacement heifer supply in dairy herds, Agric. Syst., 217 (103943), [DOI](#)

Kulkarni PS, Mourits M, Slob J, Veldhuis A, Nielen M, Hogeveen H, van Schaik G, Steeneveld W (2023) Dutch dairy farmers' perspectives on culling reasons and strategies. Pre. Vet. Med. 218, [DOI](#)

Kulkarni PS, Mourits M, Nielen M and Steeneveld W (2023) Associations between dairy farm performance indicators and culling rates under policy-driven herd size constraints. Front. Vet. Sci. 10:1062891. [DOI](#)

P Kulkarni, M Mourits, M Nielen, J van den Broek, W Steeneveld, (2021) Survival analysis of dairy cows in the Netherlands under altering agricultural policy, Pre. Vet. Med. 193, [DOI](#)

PS Kulkarni, F Biemans, MCM de Jong, P Bijma, (2021) On the origin of the genetic variation in infectious disease prevalence: Genetic analysis of disease status versus infections for Digital Dermatitis in Dutch dairy cattle, J. Ani. Bre. Gen. 138 (6), 629-642, [DOI](#)

TC Shende, PS Kulkarni, P Pawar, (2017) Genotyping of HF Crossbred cattle for Beta-Casein genes using PCR-RFLP, Indian Research Journal of Extension Education, 105-107, [PDF](#)

[Conference proceedings]

PS Kulkarni, M Mourits, M Nielen, J van den Broek, W Steeneveld, Survival analysis to study replacement strategy of Dutch dairy farmers over 10 years with varying agricultural policies (SVEPM 2021, Proceedings of the Society for Veterinary Epidemiology and Preventive Medicine annual meeting) ISBN 978-0-948073-60-1, [PDF](#)

Past Memberships/ other activities

Reviewer – Livestock
Science, BMC Veterinary
Research, Frontiers in
Veterinary Sciences
High Performance
Computing Member at
Utrecht Bioinformatics
Center
Open Science Community
Utrecht, Book club-
Bayesian Statistics and
Modelling Utrecht, Blog
writer- Academic Transfer,
Veterinary Science Day
2023 Utrecht organizing
committee

Tools and Software

R, QGIS, Python, IBM-SPSS™, SAS, Bash shell, Qualtrics™, ASREML-w

Key Skills

Tree-based Machine Learning (Random Forest, XGBoost, ET, LGBM), Species
Distribution modelling, Spatio-temporal analysis using Google EE, Regression
models, survival analysis (AFT, Proportional hazards, Parametric models),
Logistic models for classification, herd simulation, dynamic programming,
Markov Decision process, Monte Carlo simulations, Online survey, RMarkdown,
Jupyter Notebook, Latex-Overleaf
