

# Paul Motunrayo ADUNOLA

## PERSONAL INFORMATION

**Address** 1720 South West 37<sup>th</sup> Street, Gainesville, Florida, 32607, United States  
**Mobile number** +13528712783  
**Email address** [paul.adunola@ufl.edu](mailto:paul.adunola@ufl.edu); [adunolapaul@gmail.com](mailto:adunolapaul@gmail.com)  
**LinkedIn** <https://www.linkedin.com/in/adunola-paul-7039519a>

## EDUCATION

- 2021 - Present **Doctoral Degree in Horticultural science (3.89/4.0)**
- University of Florida (USA)
- 2019 – 2021 **Erasmus Mundus Master Program in Plant Breeding (emPLANT) (4.63/5.0)**
- [European Master Program in Plant Breeding](#) – First year at the [Institut Polytechnique UniLaSalle](#), Beauvais (France) and Second year at the [University of Helsinki](#) (Finland)
- 2015 – 2018 **Master's Degree in Crop Management Technology (4.91/5.0)**
- [Federal University of Technology, Akure](#) (Nigeria)
- 2008 – 2014 **Bachelor's Degree in Crop, Soil and Pest Management Technology (4.44/5.0)**
- [Federal University of Technology, Akure](#) (Nigeria)

## WORK EXPERIENCE

- Aug. 2021 -  
Till date **University of Florida Blueberry Breeding Lab, Florida, US**  
**Research Assistant**
- Co-led the development of berrycv workflow, a python-based tool for blueberry phenotyping.
  - Co-led the assessment of the potential of Near-Infrared Spectroscopy for phenomics-assisted phenotyping.
  - Co-led the assessment of the advantage of the incorporation environmental covariables in genotype by environment genomic prediction models.
  - Optimized blueberry breeding program for SNP markers and training population set size.
  - Assisted with field data collection, fruit quality analysis and genomic data analysis.
  - Co-authored several journal articles on blueberry and coffee breeding.
- Mar-July 2021 **KWS SAAT SE & Co. KGoA – Einbeck, Germany**  
**Sugar beet breeding Intern**
- Co-led image analysis of sugar beet roots for enhanced root quality breeding.
  - Assisted with data analysis of sugar beet herbicide trials.
- Oct. 2020 -  
May 2021 **Vikki Plant Science Centre, University of Helsinki, Helsinki, Finland**  
**Research Assistant**
- Co-led a study investigating the transient expression of Cas9 variants in *Nicotiana bentamiana*.
  - Co-led a study on the assessment of physiological growth and root morphology of Faba bean accessions in response to acid and Al<sup>3+</sup> stresses.

- Co-led a study assessing variation in sensitivity among Col-S single and double *Arabidopsis thaliana* mutants in response to acute ozone exposure.
- Jul. – Aug. 2020 **Corteva – AgriScience – Carcares Research Station, France**  
**Maize breeding Intern**
- Assisted with inoculation and evaluation of maize hybrids for resistance to Gibberella ear rot disease.
  - Carried out data analysis, result interpretation and report writing on Gibberella ear rot disease maize hybrid trial.
- May - Oct. 2020 **University of Florida, Blueberry Breeding and Genomics (Dr. Luis Felipe Ferrao)**  
**Genomic data analysis Intern**
- Investigated the effect of additive and dominance gene actions in genomic prediction models on Brazilian coffee populations with Sommer and ASREML R Packages.
- Jan. 2016 - Dec. 2017 **Federal University of Technology, Akure (FUTA), Crop, Soil and Pest Management**  
**Research Assistant**
- Assisted with the setting up and cultivation of field crops trials like maize, sorghum and soybean.
  - Participated in data collection and harvesting of field crop trials.
  - Involved in phenotypic data analysis (using Minitab, PB tool and Past software).
- Apr. - Sept. 2012 **International Institute of Tropical Agriculture, headquarters, Nigeria**  
**Internship in Cassava breeding**
- Participated in the morphological characterization of beta-carotenoid cassava trials.
  - Assisted with the evaluation of post-harvest physiological deterioration of cassava trials.
  - Involved in data collection and scoring for cassava pests and diseases.

## TEACHING EXPERIENCE

- Jan. 2023 - May. 2023 **Graduate Teaching Assistant, Department of Horticultural Science, University of Florida**  
Topic: Survey of breeding tools and methods (HOS6932)
- Taught 22 graduate students a practical session of the course.
  - Assisted with class moderation and grading of assignments.
- Jan. 2017 - May. 2017 **Graduate Teaching Assistant, Department of Crop, Soil and Pest Management, Federal University of Technology, Akure**  
Topic: Advanced seed production technology (CSP504)
- Taught an estimated 40 undergraduate students a practical session of the course.
  - Assisted with class moderation and grading of examination.
- Topic: Advanced seed production technology (CSP409)
- Taught an estimated 40 undergraduate students a practical session of the course.
  - Assisted with class moderation and grading of examination.

## ACADEMIC PROJECTS

Aug. 2021 - Present	<b>Ph.D Degree Thesis at the University of Florida</b> Topic: "Optimization of Phenomic and Genomic Selection and the Assessment of Genotype by Environment Interaction in Blueberry Fruit Quality Traits."
Sept. 2020 - Apr. 2021	<b>Master's Degree Thesis at the University of Helsinki</b> Topic: "Identification and Expression of putative seed lipoxygenase (LOX) genes in Faba bean."
Apr. 2016 - Sept. 2017	<b>Master's Degree Thesis at the Federal University of Technology, Akure</b> Topic: "Introgression of Opaque-2 Gene into the Genetic Background of Popcorn Using Marker Assisted Selection."
Apr. - Sept. 2013	<b>Bachelor's Degree Dissertation at the Federal University of Technology, Akure</b> Topic: "Taxonomic Implication of Vegetative, Floral and Grain Morphology in Four Varieties of Maize."

## TRAININGS AND CERTICATIONS

### TRAININGS

Feb. 2023	North American Plant Phenotyping Network Annual Conference at the Donald Danforth Plant Science Center.
Jan. 2023	Tools for Polyploids Training Workshop, University of San Diego.
Aug. 2022	Introductory Training in Geographic Information System: Using Applications for Natural Resource Management. University of Florida, Sea Grant and WSP Golder.
July 2022	University of Washington Biostatistics Summer Institute in Statistical Genetics.
Feb. 2022	North American Plant Phenotyping Network Annual Conference at the University of Georgia.
Jan. 2022	Tools for Polyploids Training Workshop, University of Georgia.

### CERTIFICATIONS

Aug. 2022	<a href="#">Introduction to TensorFlow for AI, ML and Deep Learning</a> (DeepLearning.AI)
July 2022	<a href="#">Neural Networks and Deep Learning</a> (DeepLearning.AI)
May 2022	<a href="#">Machine learning</a> (Stanford University)
Apr. 2022	<a href="#">Statistical learning</a> (Stanford University)
Jan. 2022	<a href="#">Mathematics for Machine Learning: Linear Algebra</a> (Imperial College)
Mar. 2021	<a href="#">Biology Meets Programming: Bioinformatics for Beginners</a> (UC San Diego)
Dec. 2020	<a href="#">Big Data Integration and Processing</a> (UC San Diego)
Jun. 2020	<a href="#">The Location Advantage (ESRI)</a>
Apr 2020	<a href="#">Spatial Data Science: The New Frontier in Analytics (ESRI)</a>
Mar. 2020	International Union for the Protection of New Varieties of Plants (UPOV) Certification. (Credential ID: DL205E20S1)

## PUBLICATIONS/PRESENTATIONS

### JOURNAL ARTICLE

2023	<b>P. Adunola</b> , Maria Amélia G Ferrão, Romário G Ferrão, Aymbire F A da Fonseca et al., Genomic selection for genotype performance and environmental stability in <i>Coffea canephora</i> , <i>G3 Genes/Genomes/Genetics</i> , 2023;, jkad062, <a href="https://doi.org/10.1093/g3journal/jkad062">https://doi.org/10.1093/g3journal/jkad062</a>
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- 2022 P. Kumar, J. Singh, G. Kaur, **PM. Adunola**, et al. (2022). [Omics in Fodder Crops: Applications, Challenges, and Prospects](#). Current Issues in Molecular Biology. Vol. 44(11): 5540-5474.
- 2021 PM. Adunola, LS. Fayeun and AB. Fadara. (2021). [Impact of climate change on armyworm infestation on maize in Nigeria: A review](#). Journal of Plant breeding and crop science. Vol. 13(3), pp. 158-167.
- 2019 **PM. Adunola**, B. O. Akinyele, A. C. Odiyi, L. S. Fayeun and M. G. Akinwale (2019). [Introgression of Opaque-2 Gene into the Genetic Background of Popcorn Using Marker Assisted Selection](#). International Research Journal of Biotechnology. Vol. 5(1) pp 10-18.

#### Conference Poster (P) and Oral (O) Presentations

- 2023 **P. M. Adunola**, T. Schultz, G. Casorzo, E. Tavares, C. Azevedo, L. F. V. Ferrão and P. R. Munoz (2023). berrycv-worfklow: A python-based computer vision tool for quantifying waxy bloom in blueberries. National Association of Plant Breeders. (P)
- 2023 G. Casorzo, L. F. V. Ferrão, **P. M. Adunola**, E. Tavares, C. Azevedo, R. Amadeu and P. R. Munoz (2023). Breeding Southern Highbush Blueberries with Improved Postharvest Quality. National Association of Plant Breeders. (P)
- 2023 **P. M. Adunola**, L. F. V. Ferrão and P. R. Munoz (2023). Integration of Genetic and Data-Driven Methods for Optimizing Genomic Prediction in Autotetraploid Blueberries. International Plant and Animal Genome, San Diego, California. (P)
- 2023 L. Ghimire, N. C. Flor, **P. M. Adunola**, F. E. Enciso-Rodriguez, L. F. V. Ferrão, J. Benevenuto, P. F. Harmon and P. R. Munoz (2023). Identification of genomic regions associated with bacterial wilt resistance in southern highbush blueberries using genomic-wide association study. International Plant and Animal Genome, San Diego, California. (P)
- 2022 **P. M. Adunola**, L. F. V. Ferrão and P. R. Munoz (2022). Using genomic selection for trait stability in coffee breeding. American Society for Horticultural Science Conference, Chicago, Illinois. (P)
- 2018 **P. M. Adunola**, Akinyele, B. O. and Fayeun, L. S. (2018). Genetic Variances and Heritability among F1s of Quality Protein Maize and Popcorn. Proceedings of 4th Annual National Conference of the Association of Seed Scientists of Nigeria, held at The Federal University of Technology, Akure (FUTA), Nigeria, 24-28 June, pp 117-124. (O)
- 2018 Omosebi, T., **Adunola, P. M.**, Fayeun, L. S. and Akinyele, B. O. (2018). Morphological characters and character association among sixty Bambara groundnut accessions in Nigeria. Proceedings of 4th Annual National Conference of the Association of Seed Scientists of Nigeria, held at FUTA, 24-28 June, pp 158-166. (O)
- 2017 Odiyi, A. C., Owolabi, O. F., **Adunola P. M.** and Fayeun L. S. (2017). Genetic Variability and Character Association in Cucumber Genotypes Grown in Rainforest Ecology. Proceedings of 9th Annual National Conference of the School of Agriculture and Agricultural Technology, Federal University of Technology, Akure held at FUTA, May 30-June 1, pp 268-271. (O)

## OTHER ACTIVITIES

### TECHNICAL SKILLS

- Proficiency in collecting and analyzing phenomic (Near-InfraRed Spectroscopy) dataset.
- Extensive skills in big data analysis and statistics.
- Programing experience in R, Python and Bash.
- Experience with Plant Phenotyping Technologies e.g. FruitFirm, Near-InfraRed Spectroscopy.

### ASSOCIATIONS/VOLUNTEERISM

Jan. 2021 - Present	Founder, Edu-Kids Foundation Nigeria and US.
May 2023 - Present	Volunteer, Peak Literacy, US.
Oct. 2022 - Present	Founding Member, GNV Global Shapers Hub, Gainesville, US.
Jan. 2022 - Present	Member of University of Florida Minorities in Agriculture Natural Resources and Related Sciences, US.
Nov. 2021 - Present	Secretary, University of Florida Plant Science Council, US.
Jan. 2021 - Present	Project Lead, Student Support Project, Kids and Teen Resource Center, Ondo State, Nigeria.
Aug. 2020 - July 2021	Member of Erasmus Mundus Association, Accounts Management Sub-Unit, Finland.
Sept. 2019 - Feb. 2020	Member of Uniraid Association, UniLaSalle, Beauvais, France.
Sept. 2017 - June 2019	Member of Sustainable Development Goals Action Campaign Tour, Ondo State, Nigeria.

### AWARDS

May. 2023	Rockey Foundation of Food and Agricultural Research (FFAR) Fellowship (2023-2026).
May. 2023	University of Florida Graduate Student Council Travel Award.
Jan. 2023	Bayer Encompass Scholarship.
Aug. 2022	American Society of Horticultural Students Travel Grant Award.
July 2022	University of Washington Summer Institute in Statistical Genetics Scholarship Recipient.
April 2022	University of Helsinki's Best Master's Thesis Scholarship Award.
Aug. 2021	Fully Funded Doctoral Degree in Horticultural Science and Research Assistantship, Department of Horticultural Science, University of Florida.
Aug. 2019	Erasmus Mundus Master's Degree in Plant Breeding.
July. 2018	Best Graduating Student of the Department of Crop, Soil and Pest Management, Master's Degree in Crop Technology.

Apr. 2014

Best Graduating Student of the Department of Crop, Soil and Pest Management,  
Bachelor's Degree in Crop, Soil and Pest Management.

## REFEREES

### **Dr. Munoz Patricio**

Associate Professor, Blueberry Breeding and Genomics Lab, University of  
Florida, Gainesville, FL, USA

[p.munoz@ufl.edu](mailto:p.munoz@ufl.edu)

### **Dr. Luis Felipe Ferrao**

Research Assistant Scientist, Blueberry Breeding and Genomics Lab,  
University of Florida, Gainesville, FL, USA

[lfelipe.ferrao@gmail.com](mailto:lfelipe.ferrao@gmail.com); [lferrao@ufl.edu](mailto:lferrao@ufl.edu)

### **Dr. King Zachary**

Northern Corn Market Segment Team Lead

[Zachary.King@syngenta.com](mailto:Zachary.King@syngenta.com)