

University Academic Curriculum Vitae

Personal information	Name: Michele Gullino E-Mail: michele.gullino@student.unibz.it
Education since leaving school	01/2025 – 07/2025 - Visiting researcher at the IMO-IMOMEC and Functional Material Engineering Group, University of Hasselt, Hasselt (Belgium) Project title: “Screen printed stretchable strain sensor for continuous monitoring of apple fruit growth”. Supervisor: Prof. Wim Deferme. 06/2023 - M.Sc. in “International Horticultural Science” Alma Mater Studiorum – Università di Bologna, Bologna (Italy) Thesis title: “The application of a low-cost depth camera and neural network for sizing apple fruits”. Grade: 110/110 summa cum laude, Supervisor: Prof. Luigi Manfrini. 04/2020 - B.Sc. in “Scienze e tecnologie Agrarie” (“Agricultural Science”), Università di Torino, Torino (Italy) Thesis title: “Optical remote sensing: considerations on technology transfer in arboriculture” Grade: 105/110, Supervisor: Prof. Enrico Corrado Borgogno Mondino.
Professional experience	11/2023 – Ongoing - Doctoral degree in “Food Engineering and Biotechnology”, Faculty of Science and Technology, Free University of Bozen-Bolzano, Bozen-Bolzano (Italy). Funded in collaboration with Laimburg Research Center (Italy) Project title: “Design, development, characterization and validation of a low-cost sensor for field monitoring of fruit growth”. Supervisor: Prof. Paolo Lugli 07/2023 – 10/2023 – Research Fellow – Ecophysiology and Precision Orchard Management Group, University of Bologna (Italy). Research areas: Fruit physiology, precision agriculture and data analysis
Publications	<u>Journal articles in refereed academic journals</u> - De Petris, S., Sarvia, F., Gullino, M., Tarantino, E., & Borgogno-Mondino, E. (2021). Sentinel-1 polarimetry to map apple orchard damage after a storm. <i>Remote Sensing</i>, 13(5), 1030. - Bortolotti, G., Piani, M., Gullino, M., Mengoli, D., Franceschini, C., Grappadelli, L. C., & Manfrini, L. (2024). A computer vision system for apple fruit sizing by means of low-cost depth camera and neural network application. <i>Precision Agriculture</i>, 25(6), 2740-2757.

3. Vasquez, S., Ibba, P., **Gullino, M.**, Ciccone, G., Rasheed, A., Allarà, C., ... & Petti, L. (2025). Plant wearables: Bridging technology and sustainability in precision agriculture. *Applied Physics Letters*, 127(5).
4. Vasquez, S., Allarà, C., Altana, A., Ibba, P., **Gullino, M.**, Holzknecht, E., ... & Petti, L. (2025). Modular Impedimetric Sensing Platform for Laboratory and Field Characterization in Precision Agriculture. *IEEE Transactions on AgriFood Electronics*.

Conference papers

1. **Gullino, M.**, Piani, M., Franceschini, C., Mengoli, D., Omodei, N., Rossi, S., ... & Manfrini, L. (2023, December). A computer vision approach for estimating fruit growth rate in orchards. In II International Symposium on Precision Management of Orchards and Vineyards 1395 (pp. 393-400).
2. **Gullino, M.**, Lanthaler, A. H., Altana, A., Vasquez, S., Ibba, P., Lugli, P., ... & Manfrini, L. (2024, May). Stretching the limits: monitoring apple fruit growth with an ultra-stretchable strain sensor. In *EHC2024: International Symposium on Robotics, Mechanization and Smart Horticulture* 1433 (pp. 309-314).
3. Vasquez, S., Altana, A., Allarà, C., **Gullino, M.**, Holzknecht, E., Guerra, W., ... & Petti, L. (2024, September). Autonomous and low-cost data acquisition system for impedimetric sensors in precision horticulture. In *2024 IEEE 2nd Conference on AgriFood Electronics (CAFE)* (pp. 155-159). IEEE.

Newspaper publications:

1. Bortolotti, G., Piani, M., **Gullino, M.**, Bonora, A., Franceschini, C., Mengoli, D., ... & Manfrini, L. (2023). Utilizzo di telecamere di profondità a basso costo e di reti neurali per stimare caratteri quali quantitativi dei frutti direttamente in frutteto. *ACTA ITALUS HORTUS*, 322-323.
2. Manfrini, L., **Gullino, M.**, Piani, M., Franceschini, C., Mengoli, D., Omodei, N., ... & Bortolotti, G. (2024). Il futuro del monitoraggio della crescita dei frutti è la computer vision. *RIVISTA DI FRUTTICOLTURA E DI ORTOFLORICOLTURA*, 1, 24-28.
3. Peppi, L. M., **Gullino, M.**, Ibba, P., Lugli, P., Guerra, W., Petti, L., & Manfrini, L. (2025). Sensori di crescita dei frutti in continua evoluzione. *Rivista di Frutticoltura e di Ortofloricoltura*, 1, 46-49.
4. Holzknecht, E., Guerra, W., Panzeri, F., **Gullino, M.**, Thalheimer, M., & Andergassen, C. (2025). I frutteti del futuro saranno digitali. *Rivista di Frutticoltura e di Ortofloricoltura*, 89(1), 58-61.
5. Bortolotti, G., Piani, M., **Gullino, M.**, Mengoli, D., Franceschini, C., Grappadelli, L. C., & Manfrini, L. (2025). Mele Fuji osservate con telecamere e reti neurali. *Rivista di Frutticoltura e di Ortofloricoltura*, 89(1), 50-53.

	<u>TV Services:</u> M. Gullino Interview during Interpoma Tours 2024: Come stanno crescendo le mele? Agronotizie - imaginelineetwork https://agronotizie.imagelineetwork.com/agronomia/2024/12/09/come-stanno-crescendo-le-mele/86362
Language competence	Italian: Native English: Advanced – Diploma IELTS C1
Driving license	B
	Date: Bolzano, 3/10/2025 Signature