



CERTIFICATE

Doutor Degree (Doctor's Degree)

Mónica Isabel Saraiva Pissarra da Silva, Responsible for the Academic Services of the *Universidade do Porto* (University of Porto):
Hereby certifies that

Luis Miranda Cruz

holder of civil ID number 13227188, of Portuguese nationality, completed at this University, on the 02nd of July 2019, the *Doutor* degree (Doctor's degree) in *Informática* (Computer Science - MAP joint programme), having been Approved.

Degree conferred as part of the cycle of studies taught jointly by the *Faculdade de Ciências* (Faculty of Sciences) and *Faculdade de Engenharia* (Faculty of Engineering) of this University.

Degree awarded in the Doctoral Program in association with the *Universidade de Aveiro* (University of Aveiro) and the *Universidade do Minho* (University of Minho).

This degree was registered under number 11005176D200604222.

Universidade do Porto (University of Porto), 21st of November 2019.

Responsible of the Administrative Office

Emit. tmoura

N. Cert. 461795

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