# Pedro Ribeiro Mendes Júnior

Institute of Computing (IC)
University of Campinas (Unicamp)

Av. Albert Einstein, 1251, Campinas, SP, 13083-852, Brazil

Phone: +55 (19) 3521-5840

Emails: pedrormjunior@gmail.com • mendesjr@unicamp.br

URL: pedrormjunior.github.io Lattes ID: 4535492803722330 ORCID: 0000-0001-8086-018X ResearcherID: T-3501-2019

## Current position

2019–2020 Postdoctoral researcher

Reasoning for Complex Data (RECOD) lab

Institute of Computing University of Campinas

## Areas of specialization

Computer Science • Machine Learning • Open-Set Recognition • Digital Forensics

### Education

PHD in Computer Science, University of Campinas (Unicamp), Brazil
 MSc in Computer Science, University of Campinas (Unicamp), Brazil
 BSc in Computer Science, Federal University of Ouro Preto (UFOP), Brazil

## **Complementary Education**

2018-2019 Postdoctoral researcher (9 months)

Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB), Politecnico di Milano

With Prof. Paolo Bestagini and Prof. Stefano Tubaro

2017-2018 Deep Learning Specialization (68 hours)

by deeplearning.ai, online on Coursera

2016–2017 Doctoral internship as a researcher assistant (1 year)

University of Colorado Colorado Springs (UCCS)

With Prof. Terrance Boult

Short term course in Applied Functional Programming in Haskell (40 hours)

Utrecht University, Netherlands

### Languages

(Elementary • Basic • Intermediary • Advanced • Fluent or Native)

Portuguese Native

English Understanding Fluent • Speaking Advanced • Writing Advanced • Reading Advanced

Spanish Understanding Intermediary • Speaking Intermediary • Writing Intermediary • Reading Advanced

Italian Understanding Intermediary • Speaking Intermediary • Writing Basic • Reading Intermediary

### Grants, honors & awards

Prêmio Inventores Unicamp • Reitoria da Unicamp e Agência de Inovação Inova Unicamp
 Honored Papers 2015 • Elsevier Computers in Biology and Medicine

### **Publications**

JOURNAL ARTICLES

- Mendes Júnior, Pedro; Bondi, Luca; Bestagini, Paolo; Tubaro, Stefano; Rocha, Anderson, "An indepth study on open-set camera model identification", *IEEE Access.* 7:180713–180726.
- Neira, Manuel; **Mendes Júnior, Pedro**; Rocha, Anderson; Torres, Ricardo, "Data-fusion techniques for open-set recognition problems", *IEEE Access.* 6:21242–21265.
- Werneck, Rafael; de Almeida, Waldir; Stein, Bernardo; Pazinato, Daniel; Mendes Júnior, Pedro; Penatti, Otávio; Rocha, Anderson; Torres, Ricardo, "Kuaa: A unified framework for design, deployment, execution, and recommendation of machine learning experiments", Elsevier Future Generation Computer Systems. 78(1):59-76.
- Mendes Júnior, Pedro; Souza, Roberto; Werneck, Rafael; Stein, Bernardo; Pazinato, Daniel; de Almeida, Waldir; Penatti, Otávio; Torres, Ricardo; Rocha, Anderson, "Nearest neighbors distance ratio open-set classifier", Springer Machine Learning. 106(3):359–386.
- Pazinato, Daniel; Stein, Bernardo; de Almeida, Waldir; Werneck, Rafael; **Mendes Júnior, Pedro**; Penatti, Otávio; Torres, Ricardo; Menezes, Fabio; Rocha, Anderson, "Pixel-level tissue classification for ultrasound images", *IEEE Journal of Biomedical and Health Informatics*. 20(1):256–267.
- Penatti, Otávio; Werneck, Rafael; de Almeida, Waldir; Stein, Bernardo; Pazinato, Daniel; **Mendes Júnior, Pedro**; Torres, Ricardo; Rocha, Anderson, "Mid-level image representations for real-time heart view plane classification of echocardiograms", *Elsevier Computers in Biology and Medicine*. 66:66–81.

#### PROCEEDINGS

- Mendes Júnior, Pedro; Bondi, Luca; Bestagini, Paolo; Rocha, Anderson; Tubaro, Stefano (2019), "A PRNU-based method to expose video device compositions in open-set setups", In: *IEEE Intl. Conference on Image Processing*. pp. 96–100.
- Li, Lin; Muñoz, Javier; Almeida, Jurandy; Calumby, Rodrigo; Penatti, Otávio; Dourado, Ícaro; Nogueira, Keiller; Mendes Júnior, Pedro; Pereira, Luís; Pedronette, Daniel; dos Santos, Jefersson; Gonçalvez, Marcos; Torres, Ricardo (2015), "RECOD @ Placing Task of MediaEval 2015", In: MediaEval 2015 Workshop. pp. 1–3.
- Li, Lin; Penatti, Otávio; Almeida, Jurandy; Chiachia, Giovani; Calumby, Rodrigo; **Mendes Júnior, Pedro**; Pedronette, Daniel; Torres, Ricardo (2014), "Multimedia geocoding: The RECOD 2014 approach", In: *MediaEval 2014 Workshop*. pp. 1–2.
- Mendes Júnior, Pedro; Neves, José Maria; Taveres, Andrea; Menotti, David (2011), "Towards an automatic vehicle access control system: License plate location", In: *IEEE Intl. Conference on Systems, Man, and Cybernetics.* pp. 2916–2921.
- Mendes Júnior, Pedro; Neves, José Maria; Menotti, David (2010), "Em rumo a um sistema automático

de controle de acesso de veículos automotivos: Localização de placas de identificação", In: WUW Workshop of Undergraduate Work, XXIII Conference on Graphics, Patterns and Image.

#### PREPRINT

Mendes Júnior, Pedro; Boult, Terrance; Wainer, Jacques; Rocha, Anderson (2019), "Specialized Support Vector Machines for open-set recognition", arXiv:1606.03802.

#### **PATENTS**

- Mendes Júnior, Pedro; Souza, Roberto; Werneck, Rafael; Stein, Bernardo; Pazinato, Daniel; de Almeida, Waldir; Penatti, Otávio; Torres, Ricardo; Rocha, Anderson, "Method for Multiclass Classification in Open-set Scenarios and uses thereof", United States Patent and Trademark Office (USPTO). US20160092790A1, US10133988B2. Filing date: 11/04/2014. Publication date: 03/31/2016. Issue date: 11/20/2018.
- Mendes Júnior, Pedro; Souza, Roberto; Werneck, Rafael; Stein, Bernardo; Pazinato, Daniel; de Almeida, Waldir; Penatti, Otávio; Torres, Ricardo; Rocha, Anderson, "Método para classificação multiclasse em cenários abertos e usos do mesmo", Instituto Nacional da Propriedade Industrial (INPI). BR102014023780A2. Filing date: 09/25/2014. Publication date: 05/17/2016.
- Rocha, Anderson; Torres, Ricardo; Penatti, Otávio; **Mendes Júnior, Pedro**; Pazinato, Daniel; de Almeida, Waldir; Werneck, Rafael; Stein, Bernardo, "Método para classificação automática de visões do coração a partir de ecocardiogramas", *Instituto Nacional da Propriedade Industrial (INPI)*. BR102014011059A2. Filing date: 05/07/2014. Publication date: 12/04/2018.