Pedro Ribeiro Mendes Júnior

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Current position

2018–2019 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

BSc in Computer Science, Federal University of Ouro Preto (UFOP), Brazil

MSc in Computer Science, University of Campinas (Unicamp), Brazil

PHD in Computer Science, University of Campinas (Unicamp), 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

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*. (Early Access)
- 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. 1–5. (To Appear)
- 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), "Towards an automatic vehicle

access control system: License plate location", 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.