# Pedro Ribeiro Mendes Júnior

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Born: June 17, 1990, São Sebastião da Grama, São Paulo, Brasil

Nationality: Brazilian

## Current position

Post-doc researcher, Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano

## Areas of specialization

Computer Science • Machine Learning • Open-Set Recognition

### Education

BCS, 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

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

Portuguese Native

2011

2016

English Understanding Advanced • Speaking Intermediary • Writing Advanced • Reading Advanced • Reading Intermediary • Speaking Basic • Writing Basic • Reading Intermediary • Reading Elementary • Reading Elementary

# Grants, honors & awards

Prêmio Inventores Unicamp • Reitoria da Unicamp e Agência de Inovação Inova Unicamp

### **Publications**

#### JOURNAL ARTICLES

- 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

- 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.

#### **PATENTS**

2014

- 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).

  U.S. Patent: 14532580. 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)*. Brazil: BR10201402378. 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)*. Brazil: BR10201401105. Filing date: 05/07/2014.