Pablo **Sánchez Pérez**

Computer Scientist · PhD in Computer Science and Telecommunications Engineering.

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Work experience

Universidad Pontificia Comillas
Madrid, Spain

Assistant Professor
August 2022 - Today

- Main task: teaching Python programing, operating sytems, algorithms and data structures and databases.

Universidad Autónoma de Madrid
Madrid, Spain

Postdoctoral researcher
July 2021 - August 2022

- Main task: research in recommender systems (especially in Point-Of-Interest recommendation).

Universidad Autónoma de Madrid
Madrid, Spain

Predoctoral researcher
July 2018 - July 2021

- Main task: use of contextual dimensions such as sequentiality and time in recommender systems (mainly in neighborhood-based algorithms).

Universidad Autónoma de Madrid
Madrid, Spain

Researcher intern in the Information Retrieval Group
September 2016 - July 2017

- Research and development of different recommender systems while studying the master's degree.

Universidad Autónoma de Madrid
Madrid, Spain

Web programmer and Database design and management
September 2015 - July 2016

- Development of the Escuela Politécnica Superior's website and database (faculty of the Universidad Autónoma de Madrid).

Education

Universidad Autónoma de Madrid
Madrid, Spain

PhD in Computer Science and Telecommunication Engineering
October 2017 - July 2021

- Grade: Distinction Cum Laude in the thesis titled: **Exploring attributes, sequences, and time in Recommender Systems: From classical to Point-of-Interest recommendation**.

Universidad Autónoma de Madrid
Madrid, Spain

Master in research and innovation in Information and Telecomunication Tecnologies
September 2016 - July 2017

- Average grade: 9,05/10.
- High honours in the final Master's thesis titled: **Exploiting Subsequence Matching in Recommender Systems**.

Universidad Autónoma de Madrid
Madrid, Spain

Grade on Computer Science.
September 2011 - June 2016

- Average grade: 7,83/10.
- High honours in the final degree project titled: **Study And Applications of Algorithms and Data Structures in Recommender Systems**.

Research activities

Research areas

- Recommender Systems, Ranking Evaluation, Information Retrieval.

Participation in research projects

Project: Mas allá de la recomendación estática: equidad, interacción y transparencia
Universidad Autónoma de Madrid

Researcher
July 2020 - May 2023

Participation in the project while finishing the thesis and in the postdoctoral phase defining new mechanisms to measure fairness in the recommendations and partially mitigate the possible injustices and biases that may exist in them.

Project: Recomendación en Medios Sociales: Contexto, Diversidad y Sesgo Algorítmico
Universidad Autónoma de Madrid

Predoctoral researcher
July 2017 - December 2019

Participation in the project while conducting my PhD analyzing biases in recommender systems and defining new mechanisms to incorporate temporal and sequential influence in the recommendations. I also used contextual information to define new metrics to measure the performance of the algorithms in terms of relevance, sequential relevance and temporal novelty.

Project: MyStreetBook
Universidad Autónoma de Madrid

Collaborator
March 2017 - July 2017

Algorithm design to generate personalized tourist routes for users of the MyStreetBook application.

Attendance and papers presentation at conferences

2022	**Attendee and lecturer**, ACM Conference on User Modeling, Adaptation and Personalization (UMAP 2022). 4 - 7 July 2022.	*Barcelona*
2019	**Attendee and lecturer**, ACM Conference on Recommender Systems (RecSys 2019). 16 - 20 September 2019.	*Denmark*
2018	**Attendee and lecturer**, ACM Conference on Recommender Systems (RecSys 2018). 2 - 7 October 2018.	*Canada*
2018	**Attendee and lecturer**, Spanish Conference on Information Retrieval (CERI 2018). 25 - 27 June 2018.	*Spain*
2018	**Attendee and lecturer**, European Conference on Information Retrieval (ECIR 2018). 26 - 29 Mars 2018.	*France*

PROGRAM COMMITTEE & REVIEWER IN CONFERENCES/WORKSHOPS

2022	**Web Chair**, 33rd ACM Conference on Hypertext and Social Media - HT' 2022.	*Spain*
2021	**PC member**, 3nd Workshop on Knowledge aware and Conversational Recommender Systems - KaRS 2021.	*Netherlands*
2021	**PC member**, ACM RecSys Workshop on Recommenders in Tourism - RecTour 2021.	*Netherlands*
2021	**PC member**, ACM Conference on Recommender Systems - RecSys 2021- . Reproducibility Track.	*Netherlands*
2020	**PC member**, ACM Conference on Recommender Systems - RecSys 2020 - . Reproducibility Track.	*Rio de Janeiro*
2019	**PC member**, 2nd Workshop on Knowledge aware and Conversational Recommender Systems - KaRS 2019.	*China*

REVIEWER IN JOURNALS

- Information Processing and Management.
- Information Technology & Tourism.
- International Journal of Data Science and Analytics.
- Geocarto International.
- User Modeling and User-Adapted Interaction.

Publications

- Since 2016 I have published a total of **20** papers. All of them can be found in my Google Scholar web page. The code (in Java) to replicate the results of the articles is available in my Bitbucket profile: `https://bitbucket.org/PabloSanchezP/`.

JOURNALS

Bias characterization, assessment, and mitigation in location-based recommender systems

Data Mining and Knowledge Discovery

PABLO SÁNCHEZ, ALEJANDRO BELLOGÍN, and LUDOVICO BORATTO. DOI: 10.1145/3510409.

2023

- JCR Impact factor 2021: 5.406, 36/164 (Information Systems: Q1), 41/145 (Artificial Intelligence: Q2).

Point-of-Interest Recommender Systems based on Location-Based Social Networks: A Survey from an Experimental Perspective

ACM Computing Surveys

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1145/3510409.

2022

- JCR Impact factor 2020: 10.282. Q1: 4/110. Computer Science, Theory & Methods.

On the effects of aggregation strategies for different groups of users in venue recommendation

Information Processing and Management

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1016/J.IPM.2021.102609.

2021

- JCR Impact factor 2020: 6.222. Q1: 21/162. Computer Science, Information Systems.

Time and sequence awareness in similarity metrics for recommendation

Information Processing and Management

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1016/J.IPM.2020.102228.

2020

- JCR Impact factor 2020: 6.222. Q1: 21/162. Computer Science, Information Systems.

Applying reranking strategies to route recommendation using sequence-aware evaluation

User Modeling and User-Adapted Interaction

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1007/S11257-020-09258-4.

2020

- JCR Impact factor 2020: 4.412. Q1: 5/23 Computer Science and Cybernetics.

Building user profiles based on sequences for content and collaborative filtering

Information Processing and Management

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1016/J.IPM.2018.10.003.

2019

- JCR Impact factor 2019: 4.787. Q1: 22/156. Computer Science, Information Systems.

Collaborative filtering based on subsequence matching: A new approach

Information Sciences

ALEJANDRO BELLOGÍN and PABLO SÁNCHEZ. DOI: 10.1016/J.INS.2017.08.016.

2017

- JCR Impact factor 2017: 4.305. Q1: 12/148. Computer Science, Information Systems.

CONFERENCES

Travelers vs. Locals: The Effect of Cluster Analysis in Point-of-Interest Recommendation

PABLO SÁNCHEZ and LINUS W. DIETZ. DOI: 10.1145/3503252.3531320.
- CORE 2021: rank B.
- GGS 2021: class 3, rating B.

Discovering Related Users in Location-based Social Networks

SERGIO TORRIJOS, ALEJANDRO BELLOGÍN and PABLO SÁNCHEZ. DOI: 10.1145/3340631.3394882.
- CORE 2020: rank B.
- GGS 2018: class 3, rating B.

Attribute-based evaluation for recommender systems: incorporating user and item attributes in evaluation metrics

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1145/3298689.3347049.
- CORE 2018: rank B.
- GGS 2018: class 2, rating A-.

Exploiting contextual information for recommender systems oriented to tourism

PABLO SÁNCHEZ. DOI: 10.1145/3298689.3347062.
- CORE 2018: rank B.
- GGS 2018: class 2, rating A-.

Time-Aware Novelty Metrics for Recommender Systems

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1007/978-3-319-76941-7_27.
- CORE 2018: rank A.
- GGS 2018: class 2, rating A-.

Measuring anti-relevance: a study on when recommendation algorithms produce bad suggestions

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. DOI: 10.1145/3240323.3240382.
- CORE 2018: rank B.
- GGS 2018: class 2, rating A-.

New approaches for evaluation: correctness and freshness: Extended abstract

PABLO SÁNCHEZ, RUS M. MESAS and ALEJANDRO BELLOGÍN. DOI: 10.1145/3230599.3230614.

Applying subsequence matching to collaborative filtering: Extended abstract

ALEJANDRO BELLOGÍN and PABLO SÁNCHEZ. DOI: 10.1145/3230599.3230605.

Studying the effect of data structures on the efficiency of collaborative filtering systems

PABLO SÁNCHEZ, ALEJANDRO BELLOGÍN, and IVÁN CANTADOR. DOI: 10.1145/2934732.2934747.

WORKSHOPS

Challenges on evaluating venue recommendation approaches: Position paper

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. LINK.

A novel approach for venue recommendation using cross-domain techniques

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. LINK.

Revisiting neighbourhood-based recommenders for temporal scenarios

PABLO SÁNCHEZ and ALEJANDRO BELLOGÍN. LINK.

Technical skills

Programming languages	Java (High level), Python, Bash, C, SQL (Medium level). Ease of learning any programming language.
Software development	Eclipse, Pycharm, NetBeans, Visual Studio, PostgreSQL, SQLServer.
Operating Systems	Microsoft Windows, GNU/Linux.
Other software	LaTeX, Microsoft Office, Libre Office.
Other skills	Responsability, Commitment, Empathy, Motivation to learn, Organized.

Languages

Spanish	Native
English	Reading: High. Writing: Medium-High. Speaking: Medium-High. Certificate: First Certificate in English University of Cambridge.

University Teaching

Subject: Databases
Universidad Pontificia Comillas

LAB AND THEORY PROFESSOR. DEGREE IN MATHEMATICAL ENGINEERING AND ARTIFICIAL INTELLIGENCE — *January - April*

Relational and non-relational databases. Relational model, SQL, MongoDB and Neo4J. 2nd year of Degree in Mathematical Engineering and Artificial Intelligence. 1 academic course (2023).

Subject: Algorithms and Data Structures
Universidad Pontificia Comillas

LAB PROFESSOR. DEGREE IN MATHEMATICAL ENGINEERING AND ARTIFICIAL INTELLIGENCE — *January - April*

Teaching Python language, data structures and algorithms. 1st year of the Degree in Mathematical Engineering and Artificial Intelligence. 1 academic course (2023).

Subject: Operating Systems
Universidad Pontificia Comillas

LAB AND THEORY PROFESSOR. DEGREE IN MATHEMATICAL ENGINEERING AND ARTIFICIAL INTELLIGENCE — *September - December*

Process management, threads, signal communication, processor scheduling, memory management, virtual memory, file management. Bash and Linux commands. 2nd year of the Degree in Mathematical Engineering and Artificial Intelligence. 1 academic course (2022).

Subject: Programación
Universidad Pontificia Comillas

LAB PROFESSOR. DEGREE IN MATHEMATICAL ENGINEERING AND ARTIFICIAL INTELLIGENCE — *September - December*

Teaching the Python language. 1st year of the Degree in Mathematical Engineering and Artificial Intelligence. 1 academic year (2022).

Subject: Software Analysis and Design
Universidad Autónoma de Madrid

LAB JAVA PROGRAMMING TEACHER IN THE COMPUTER SCIENCE GRADE AND IN THE COMPUTER SCIENCE AND MATHEMATICS DEGREE — *February - June*

Main tasks: Teaching Java language and UML class diagrams. 2º Year of Grade on Computer Science/Grade on Computer Science and Mathematics. 4 academic courses (2019 - 2022).

Subject: Operating Systems
Universidad Autónoma de Madrid

LAB C PROGRAMMING TEACHER IN THE COMPUTER SCIENCE DEGREE — *February - June*

Main tasks: Advanced C language teaching (process management, threading and signal communication). 2º Year of Grade on Computer Science. 1 academic course (2018).

References

- **Alejandro Bellogín Kouki,** Universidad Autónoma de Madrid, **alejandro.bellogin@uam.es**   *Madrid, Spain*
- **Pablo Castells Azpilicueta,** Universidad Autónoma de Madrid/Amazon, **pablo.castells@uam.es**   *Madrid, Spain*
- **Mario Castro Ponce,** Universidad Pontificia Comillas, **marioc@iit.comillas.edu**   *Madrid, España*