

Pablo Sauma-Chacón

Costa Rican

Educational Experience

Doctor of Philosophy in Computing

University of Utah

Salt Lake City, UT, USA

August, 2023 – Ongoing

Master of Science in Computer Science and Information Technology

Universidad de Costa Rica

San Pedro, Costa Rica

March, 2017 – April, 2021

Thesis: Improving cooperation between human and computer players through plan recognition in the game Pandemic

Bachelor of Computer Science and Information Technology

Universidad de Costa Rica

San Pedro, Costa Rica

March, 2012 – August, 2016

Scholarships and Awards

Honor mention: Master of Science in Computer Science and Information Technology, April 2021

Fulbright Scholarship: Granted LASPAU scholarship starting on Fall 2023

Professional Experience

Adjunct Professor

School of Computer Sciences and Information Technology

Universidad de Costa Rica

Mar. 2019 - Present

Software developer

API development and deployment

PsyCat Games

Jan. 2021 - Present

Artificial Intelligence and Interactive Digital Entertainment Conference

Publicity Co-Chair, Program Committee Member and reviewer for the Artifact Evaluation Track

University of Utah

2023

Artificial Intelligence and Interactive Digital Entertainment Conference

Program Committee Member and reviewer for the Artifact Evaluation Track

Cal Poly Pomona

2022

Artificial Intelligence and Interactive Digital Entertainment Conference

Reviewer for the Artifact Evaluation Track

Virtual

2021

Research Experience

Heuristic refinement using neural network for planning applied to games

Main Researcher, research project No. 834-C1-074

Universidad de Costa Rica

Mar. 2021 - Sep. 2022

Planning and plan recognition in Unity

Research Associate, research project No. 834-C0-701

Universidad de Costa Rica

Mar. 2020 - Dec. 2020

Non-verbal communication in cooperative video games

Research Associate, research project No. 834-B9-341

Universidad de Costa Rica

Jul. 2019 - Apr. 2020

Publications

Sauma-Chacón, Pablo and Markus Eger. Evaluating a plan recognition agent for the game Pandemic with human players. In *2021 IEEE Conference on Games (CoG)*, pages 1–7, 2021.

Sauma-Chacón, Pablo and Markus Eger. PAIndemic: A planning agent for Pandemic. *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*, 16(1):287–293, Oct. 2020.

Markus Eger and **Sauma Chacón, Pablo**. Deck archetype prediction in Hearthstone. In *International Conference*

on the Foundations of Digital Games, FDG '20, New York, NY, USA, 2020. Association for Computing Machinery.

Markus Eger, Chris Martens, **Sauma-Chacón, Pablo**, Marcela Alfaro Córdoba, and Jeisson Hidalgo Cespedes. Operationalizing intentionality to play Hanabi with human players. *IEEE Transactions on Games*, pages 1–1, 2020.

Sauma-Chacón, Pablo and Markus Eger. Pandemic as a challenge for human-AI cooperation. In *Proceedings of the AIIDE workshop on Experimental AI in Games*, 2019.

Sauma-Chacón, Pablo and Markus Eger. Ex-tarot: An extended tarot-based narrative generation. In *2019 IV Jornadas Costarricenses de Investigación en Computación e Informática (JoCICI)*, pages 1–6, 2019.

Esteban Rodríguez-Betancourt, **Sauma-Chacón, Pablo**, and Edgar Casasola-Murillo. Deep neural network comparison for spanish tweets polarity classification. In *2019 XLV Latin American Computing Conference (CLEI)*, pages 1–6, 2019.

Teaching Experience

CI-0148 – Machine Learning

Machine learning algorithms and models

Universidad de Costa Rica

Spring & Fall 2022

CI-0134 – Research in Computer Science

Research oriented course

Universidad de Costa Rica

Fall 2022

CI-0130 – Modeling and Optimization Methods

Linear programming, Markov chains, queues and simulation

Universidad de Costa Rica

Spring & Fall 2022

CI-0113 – Programming II

Pointers, inheritance, polymorphism and templates in C/C++

Universidad de Costa Rica

Fall 2020 & Fall 2022

CI-0118 – Assembly Language

Assembly level programming

Universidad de Costa Rica

Fall 2019, 2020, 2021 & Spring 2022

CI-0112 – Programming I

Control structures, functions, arrays, recursivity and OOP in Java

Universidad de Costa Rica

Spring 2020 & Fall 2021

CI-0110 – Introduction to Computer Sciences

Python programming for computer science students, 2 groups

Universidad de Costa Rica

Spring 2021

CI-0116 – Algorithms and Data Structures

Sorting algorithms, data structures, graphs, shortest path algorithms

Universidad de Costa Rica

Spring 2021

CI-0202 – Computer Science Principles

Introductory Python programming for engineers

Universidad de Costa Rica

Spring & Fall 2019, Spring 2020

Skills

Languages

- **Spanish:** Native
- **English:** Proficient

Programming Languages

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|---------|----------|------------|
| ○ C/C++ | ○ Python | ○ M |
| ○ Java | ○ C# | ○ Assembly |