ANDRES LEBBOS HABCHI

Address
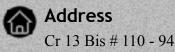Cr 13 Bis # 110 - 94

Bogota, Colombia

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RESEARCH INTERESTS

AI for Healthcare

Algorithmic Game Theory

Automated Decision Making

Pattern Recognition

Deep Learning

Ethics in AI

LANGUAGES

Spanish	*Native*	C2
English	*Fluent*	C2
Lebanese	*Advanced*	C1
Italian	*Moderate*	B1

PROFILE

As a creative problem solver and critical thinker with dual degrees in Computer Science and Electrical and Computer Engineering from Duke University, I have built a robust academic and professional foundation. I'm currently applying for a Master's in Artificial Intelligence (AI) at Maastricht University, where my objective is to fuse cutting-edge AI technologies with healthcare applications, empowering patients, caregivers, and medical professionals alike. It enables them to make informed, timely, and life-changing decisions.

EDUCATION

Duke University
June 2016 - May 2019

GPA **3.585 / 4**
Durham, NC

BSE in Electrical Computer Engineering

BS in Computer Science

Universidad de los Andes
Aug. 2015 - June 2016

GPA Unweighted **4.62 / 5** Weighted **5 / 5**
Bogota DC, Colombia

Transferred to Duke University

San Carlos School
Aug. 2003 - June 2015

GPA **3.8 / 4**
Bogota DC, Colombia

High School, Middle School, and Elementary School Diploma

EXPERIENCE

Software Reliability Engineer
June 2022 - current

Art of Problem Solving
Bogota DC, Colombia

Maintained, monitored, and modernized the reliability, resilience, infrastructure, and security of over a dozen different products, reaching over a million users.

Organized, advised, and executed a committee, reducing product degrading incidents by 20% and improving the approach and performance of their resolution and prevention.

Software Engineer
Sep. 2019 - June 2022

Art of Problem Solving
San Diego, CA

Designed and implemented dozens of software tools in an online school to improve the educational experience for 10,000 students, 270,000 members, and the teaching staff.

Coordinated and directed interview segments for the final hiring of more than two dozen software engineers.

Advised and guided new software engineers with the onboarding process to familiarize them with the distinct infrastructures, technologies, and procedures used for development.

TECH SKILLS

	Years
LaTeX	11
Java	10
SQL	8
UNIX	8
Github	8
C & C++	5
Web Development	4
Docker	3
Python	3
Matlab	3
AWS	2
Ansible	2
Terraform	1
Scheme	1

COURSEWORK

Design & Analysis Algorithms

Advanced Robot System Design

Random Noise & Signals

Linear Control Systems

Software Design

Robotics & Automation

Linear Algebra

Differential Equations

PROJECTS

Big Data Migration
July 2022 - Oct. 2023
Art of Problem Solving — Durham, NC

Migrated and optimized a 1TB database, resulting in a 20% performance increase and a 40% cost reduction without any data loss.

Automatic Student Grader
Jan. 2021 - Jan. 2022
Art of Problem Solving — Durham, NC

Developed an algorithm for automatic student grading, achieving a 97% success rate while effectively flagging academic dishonesty.

Sonar Bathymetry Hardware
Jan. - May 2019
Duke University — Durham, NC

Constructed an economic robot capable of diving up to 10,000 feet to track marine species and map oil reserves for research purposes.

Multiple Robot Synchronized Path Planning
Aug. - Dec. 2018
Duke University — Durham, NC

Designed an efficient, collision-free path-planning algorithm for dozens of synchronized robots in tight passages.

Vehicle Slippage in Unknown Terrain
Aug. - Dec. 2018
Duke University — Durham, NC

Created a learning algorithm for four-wheel steering vehicles, reducing slippage in unknown terrains at high velocities.

Measured the coefficient of friction in an unknown terrain through machine learning, feedback, and PID controllers.

Role-Playing Game (RPG) Engine
Jan. - May. 2017
Duke University — Durham, NC

Created an RPG Engine allowing users with no coding experience to design games for the final creation of dozens of innovative ideas.

Designed, implemented, and tested the back-end software, supporting the simultaneous usage by massive amounts of players.

Self-Sustained Farming Project
Aug. - Dec. 2015
Universidad de los Andes — Bogota DC, Colombia

Designed and constructed a cheap, award-winning, self-sustained automatic farming environment to help Colombian farmers.

AWARDS

Ibero-American Mathematical Olympiad
2013
Bronze Medal — Panama City, Panama

Central American & Caribbean Mathematical Olympiad
2013
Bronze Medal — Managua, Nicaragua