

Highlights	Over 14 years of work experience and strong computer science background. Excellent understanding of modern frontend, including React.js, TypeScript, and GraphQL. Solid frontend testing skills, including static, unit, integration, and E2E tests. Experienced with backend development, algorithms, machine learning, and computer vision. Self-directed learner, clear communication/documentation skills, and English fluency.	
Education	University of Campinas (Unicamp) – Campinas, Brazil <i>Master of Computer Science</i> <ul style="list-style-type: none">Title: Low False Positive Learning with Support Vector Machines.Advisor: Dr. Anderson Rocha.Member of RECOD (Reasoning for Complex Data) lab.	08/2011 – 02/2014
	Tiradentes University (Unit) – Aracaju, Brazil <i>Bachelor of Computer Science</i> <ul style="list-style-type: none">Title: Automatic Relevance Ranking of Offers Based on their Features.Advisor: M.Sc Fernando Henrique Bezerra Cardoso.Highest MGP (GPA equivalent) in class.Algorithms and Data Structures I TA.	08/2007 – 12/2011
Selected Work Experience	Venue – Toronto, Canada <i>Senior Software Engineer</i> <ul style="list-style-type: none">Senior full-stack developer for a video streaming platform.Built a POC for https://venue.live/cocreator in 2 weeks.Led major releases, including a full-rewrite of the video module.The product became stable a few months after I joined.Available at https://venue.live/ <i>Tech:</i> TypeScript, React.js, Rails, Firebase, PostgreSQL, BigQuery, Metabase, Docker, Cypress.	03/2022 - 06/2023
	Brick Abode – Florianopolis, Brazil <i>Senior Software Engineer, Tech Lead</i> <ul style="list-style-type: none">Lead frontend developer for an online marketplace that has moved more than \$100M in sales.Led and mentored a team of 5 full-stack developers for about 2 years.Refactored most of the legacy front-end to use modern web technologies.Introduced static analysis, frontend testing, and real-time monitoring.Available at https://royaltyexchange.com/ <i>Tech:</i> React.js, Django, Jest, Cypress, Testing Library, PyTest, Docker, Shell Script, AWS.	06/2019 – 01/2022
	Devord – London, United Kingdom <i>Freelance, Senior Software Engineer</i> <ul style="list-style-type: none">Designed, developed, and launched a custom CMS for a prints marketplace.It went live in 2018, grew year after year, and was then purchased by an investor in 2021.It involved: (a) interacting with the client to clarify the business requirements; (b) crafting a document with requirements, design, cost estimates, and milestones; (c) implementing the software from start to finish, with regular status updates and reviews; and (d) testing, launch, and maintenance.Available at https://myarthaus.com/ <i>Tech:</i> C++, React.js, React Native, Node, Firebase, PostgreSQL, Docker, CI, REST, Testing.	07/2017 – 09/2021
	MindSea – Halifax, Canada <i>Senior Frontend Developer</i> <ul style="list-style-type: none">Principal frontend developer for a habit-forming nutrition web application.Includes chat, payments, video calls, scheduling, and email.Completed and published to customers in 6 months.Available at https://constanthealth.ca/ <i>Tech:</i> React.js, Redux, Docker, Shell Script, REST APIs.	05/2019 – 10/2019

HOOBX Robotics – Campinas, Brazil 03/2018 – 05/2019
Machine Learning and Computer Vision Engineer, Tech Lead

- Developed real time algorithms for detecting facial expressions, on a team of four researchers.
- Redesigned and implemented the new Wheelie, with modern technologies (<https://bit.ly/2umjSmr>).
- These results were presented at CES 2019 (<https://bit.ly/2OmDWOP>).

Tech: TensorFlow, OpenVINO, AWS, Python, Scikit, Docker, React.js, Node, WebSockets, REST.

Samsung Research Institute Brazil (via Unicamp) – Campinas, Brazil 03/2014 – 03/2016
Machine Learning and Computer Vision Engineer

- Developed a method that detects porn audio with an accuracy of over 89.5%.
- Optimized and ported our learning pipeline to a mobile device, with an speed gain of 63.5%.
- Developed and delivered real time porn and violence detection tools for Android and Linux.
- One patent and second place at the VSD generalization task of MediaEval 2014 competition.
- Analyzed and reported implementation issues on the SMA and VLFeat libraries.

Tech: C++, Python, Android, Shell Script, OpenCV, LibSVM, FFmpeg, openSMILE, VLFeat.

Selected Projects

Algorithms Training 06/2016 – 04/2017

- Solved over 300 problems from Introduction to Algorithms, Third Edition (CLRS).
- Solved and coded in C++ over 80 coding problems from different sources.
- Theoretical solutions available online at <http://clrs.dmoraes.org>.
- Coded solutions available online at <https://github.com/danielmoraes/epi>.

Tech: C++, L^AT_EX.

Crowd Detection with BinBoost Descriptors 03/2014 – 06/2014

- Method to detect crowds on images – achieved an accuracy of over 94%.
- Developed on a team of two researchers.
- Paper available online at <https://dmoraes.org/projects>.
- Research conducted under supervision of Dr. Siome Goldenstein and Dra. Sandra Avila.

Tech: Python, Shell Script, OpenCV, LibSVM, BinBoost.

Low False Positive Learning with Support Vector Machines 12/2012 – 02/2014

- Novel 2-level learning method for low false positive classification.
- Methods effectiveness showed trough comparisons to other solutions in 33 datasets.
- Published on the 38th vol of the Journal of Visual Communication and Image Representation (JVCI).
- Research conducted under supervision of Dr. Anderson Rocha and Dr. Jacques Wainer.

Tech: Python, LibSVM.

Feature-Based Product Ranking 08/2012 – 12/2012

- A product ranking algorithm based on SVMs that takes into account the cost-benefit ratio.
- Agreement of 64% according to a test conducted with 79 users.
- Research conducted under supervision of Dr. Anderson Rocha.

Tech: Python, LibSVM, R, JavaScript, HTML/CSS.

Spider for Google Shopping and Buscape 05/2012 – 08/2012

- An HTML spider that collects products data from Google Shopping and Buscape.
- Collected and refined data from 495,000 offers of laptops from Google Shopping during 7 months.

Tech: Python, LibSVM, JavaScript, SQL (MySQL), HTML/CSS.

Teaching Experience

Unraveling JavaScript 11/2010
Short Course

- JavaScript course presented to computer science students at Tiradentes University.

Technical Skills

Programming: TypeScript, JavaScript, Python, C++, Shell Script, SQL.
Frameworks/Tools: React.js, Next.js, Jest, Cypress, Node.js, Django, Git, L^AT_EX.
Databases: PostgreSQL, MySQL, Redis, RabbitMQ.
DevOps: GitLab CI, Heroku, Vercel, Netlify, CloudFlare, AWS.