

Carlos Eugenio Lopes Pires Xavier Torres

Computer Scientist, Software Engineer, Engineering Manager

Orlando, Florida

cettorres.com – github.com/cettorres – linkedin.com/in/cettorres

+1 561-419-3401 – cettorres@cettorres.com

SUMMARY

Experienced software engineer with a 20-year track record in complete software solutions for mobile and web platforms. Proven expertise in leading teams, client engagement, and the entire software development lifecycle. Strong background in software engineering management, startups, business modeling, and international work experience. Master's degree in Computer Science and Ph.D. student at [UCCS](https://uccs.edu), researching AI, machine learning, NLP, and LLMs. Interested in positions such as software engineering manager/director, or principal software engineer for web and/or mobile solutions. U.S. citizen.

WORK EXPERIENCE

Principal Member of Technical Staff, [Oracle](https://www.oracle.com) – Feb/2024 – Present – Orlando, FL (Remote)

- At Oracle Health & AI, leading technical design, implementation, and delivery of a mobile digital assistant that provides rich multimodal conversational experiences allowing for seamless transition across voice, text, and touch interfaces. Responsible for innovating a new paradigm of interacting with backend AI/ML-powered bots.
- Building AI digital assistants powered by powerful LLMs on the cloud that are disrupting the very foundation of user experiences and forever changing the way people interact with technology.
- Leading the Clinical Digital Assistant (CDA) mobile team, the conversational AI arm of Oracle Health & AI, building the world's largest SaaS Digital Assistant platform to enable customers to build conversational experiences for every need.
- Using the latest mobile development frameworks for iOS and Android platforms with JavaScript/TypeScript (React Native), and natively using Swift, SwiftUI, Objective-C, Java, and Kotlin.
- Delivering scalable data solutions, practicing agile methods, and mentoring other engineers.

Principal Software Engineer, [Oracle](https://www.oracle.com) – Jan/2021 – Feb/2024 – Colorado Springs, CO (Remote)

- Led AdTech product development at Oracle Advertising using Python, Spark, Go, ML pipelines, ETL, AWS, and OCI.
- Built a popular internal full-stack web app that helped other teams access our team's data. Used React, TypeScript, Python, FastAPI, OCI, Dataflow, Spark, and NoSQL database. It facilitated the data investigation on raw logs and impression level files (parquet files) by anyone. Via a simple and intuitive web UI in React, the users could create queries with various filtering options and submit jobs to be executed. The results were then presented, and they could save the data files, re-run a job, search for past run jobs. They could also follow the job running (with a running timer) and be alerted in their Slack account when the job finish. The web application was used by many different teams and received a lot of praise by all stakeholders.
- Built for the previous team a successful full-stack web application for campaign management that helped our customers automate campaigns and generate more revenue. Used JavaScript, TypeScript, Oracle JET, React, NodeJS, and MySQL.
- Provided innovative solutions for internet-scale data problems using agile methodologies. Mentored and helped other engineers to grow.

Senior Software Engineer, [NeoTreks, Inc](https://www.neotreks.com) – Feb/2020 – Jan/2021 – Castle Rock, CO

- Consulted and negotiated with clients, leading full application development cycles.
- Created full-stack solutions (for web, desktop, and mobile) for our customers.
- Applied expertise in mobile development (iOS and Android) and legacy code maintenance.

Director of Software Engineering, [Cacira, Inc](https://www.cacira.com) – Nov/2014 – Dec/2019 – Pompano Beach, FL

- Focused on mobile solutions, project management, and backend development.
- Developed iOS, Android, and web applications using Swift, Objective-C, Dart, Kotlin, and Node.js, delivering successful products to our customers.
- Successfully managed projects, products, and teams.

Director of Software Engineering, [Cacira Tecnologia](https://www.cacira.com) – Jul/2010 – Nov/2014 – Fortaleza, Brazil

- Created a startup to provide solutions for other startups and larger companies such as banks and media groups. Business development experience, with Lean Startup, mentoring, canvas business modeling, prototyping, validation, MVP.
- Developed mobile software solutions with Swift, Objective-C, Dart, and Kotlin.
- Analyzed software specifications and created database structures.
- Successfully managed projects, products, and people.

2nd Lieutenant, [Brazilian Army](#) – Jun/2012 – Jun/2013 – Fortaleza, Brazil

- As an IT specialist officer responsible for managing the IT department of a military organization and a team of a sergeant and four corporals. Received military combat training.
- Designed and improved computer systems, networking, and telecommunications. Created and improved computer programs and systems to assist and optimize the military organization processes. Accomplished several military missions. Honorable discharge.

Project Manager, [Synopsis Brasil \(Tivit\)](#) – Mar/2009 – Jul/2010 – Fortaleza, Brazil

- Managed a team of software developers.
- Helped create new and improved billing and commercial systems for utilities (electricity), achieving goals of energy savings and reliable energy consumption measurement.
- Successfully managed projects, resources, stakeholders, timelines, and budget.

Senior Software Engineer, [Vodafone Portugal](#) – Sep/2004 – Jan/2009 – Lisbon, Portugal

- As a software engineer with Microsoft.NET certifications, created and supported web applications in ASP.NET with C# and SQL Server, helping to improve the commercial systems of this global mobile carrier.
- Successfully created intranet systems to aid decision-making for managers and directors.

EDUCATION

- **Ph.D. in Computer Science**, University of Colorado, Colorado Springs, USA (2021 – Present)
 - Currently researching AI, Machine Learning, NLP, and LLMs applied to healthcare.
- **Master's degree in Computer Science**, University of Colorado, Colorado Springs, USA (2021-2024)
 - Awards: Colorado Cybersecurity Scholarship (2023, 2024).
 - Graduate Research Assistant (2022, 2023).
 - Cybersecurity project: ACSP4HR - SPDS (Secure and Privacy-Preserving Data Sharing for Data Science Computations) – funded by NSF. Research project presented at [ISTSS](#) (International Society for Traumatic Stress Studies) 39th Annual Meeting, Nov. 2023. System available at <https://acsp4hr.cetorres.com>. Source code and more info are available on [GitHub](#).
 - Cryptography project: Homomorphic Encryption: What Is It and How Can It Help Secure Healthcare Systems. Available here: <https://github.com/cetorres/cs5920-project-demo>
 - ML project: Reinforcement Learning - Maze Agent Training with Q-Learning. Available here: https://github.com/cetorres/reinforcement_learning_maze_agent
 - ML project: Reinforcement Learning - Parking Lot Agent Training with Q-Learning. Available here: https://github.com/cetorres/reinforcement_learning_parking_lot_ql
 - ML project: Reinforcement Learning - Parking Lot Agent Training with Deep Q-Learning. Available here: https://github.com/cetorres/reinforcement_learning_parking_lot_dql
 - ML project: Product Recommendation in Online Advertising with Reinforcement Learning. Available here: https://github.com/cetorres/reinforcement_learning_final_project
- **MBA in Project Management**, Fundação Getúlio Vargas, Brazil (2009-2011)
- **Bachelor's degree in Computer Science**, Universidade Federal do Ceará, Brazil (2000-2005)

TECHNICAL SKILLS

- Programming Languages: Python, Go, JavaScript, TypeScript, Swift, Kotlin, Java, Objective-C, Dart.
- Management: Business/Product/Team/Time/Project management, Jira, leadership, goal-oriented, communication.
- Full stack web development: NodeJS, Python, Go, JavaScript, TypeScript, React, Oracle JET.
- Mobile development: iOS, Android, React Native, Flutter.
- Database: Designing, development, and analysis (MySQL, Postgres, Oracle, NoSQL, MongoDB).
- Cloud/DevOps: AWS, Azure, OCI, Digital Ocean, Git, GitHub, BitBucket.
- AI/ML: Machine Learning, LLMs, NLP, Reinforcement Learning, Generative AI, AI agents and assistants.

LANGUAGES AND INTERESTS

- English (Fluent)
- Portuguese (Native)
- Spanish (Conversational)
- Interests: AI, ML, technology, science, charity, philosophy, music, spirituality, home automation.