

Lucas David

PHD STUDENT/DATA SCIENTIST

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Summary

PhD Student at University of Campinas. Data scientist with experience in computer vision, explainable visual systems, natural language processing and IoT distributed sensorial data processing. Master of Computer Science by University of Campinas, Computer Science B.S. from Universidade Federal de São Carlos. Interested in Machine Learning, Distributed Systems and Software Engineering.

Work Experience

Dextra Digital

Campinas, Brazil

DATA SCIENTIST

Apr. 2019 - Dec. 2020

- Studied and implemented ML models for core business problems, such as natural language processing and speech transcription.
- Tested business and scientific hypotheses over big data scenarios using spark clusters.
- Contributed to the creation of the team's core and archetype modules, which encapsulated distributed data processors, machine learning models and analysis code in order to increase quality in data science and data engineering tasks.
- Worked with multiple tools in Google Cloud suite: DataProc clusters, Google Storage, BigQuery, Scheduler, Google Topics and Functions etc.

Solvian

Campinas, Brazil

DATA ENGINEER

Oct. 2017 - Apr. 2019

- Developed Machine Learning models in the commercial and industrial sectors, modeling equipment behavior and detecting abnormal behavior. Contributed on the creation of data visualization for IoT data streams and trend analysis.
- Implemented REST services to apply ML models to a diverse set of measurements captured by hundreds of sensors. Analyzed and improved performance bottlenecks in the microservices responsible for processing sensor readings in real time.

Raccoon Marketing Digital

São Carlos, Brazil

SOFTWARE DEVELOPMENT INTERN

Mar. 2015 - Apr. 2015

- Developed web services and integrated them with existing web modules and REST APIs.
- Domain modeling for NoSQL database MongoDB.
- Performance benchmark over the code developed using apache ab.

CECOTEIN Info.

Uberaba, Brazil

SOFTWARE DEVELOPER JUNIOR

Aug. 2010 - Mar. 2011

- Prototyped a house automation project containing real-time communication with sensors and actuators.
- Maintained internal personnel and sales management system.

Honors & Awards

2021	Doctorate Program Scholarship , CNPq – National Council for Scientific and Technological Development	Campinas, Brazil
2021	Alumni Sponsorship , University of Campinas	Campinas, Brazil
2016	Research Sponsorship , Microsoft Latin Research Program	Campinas, Brazil
2016	Master Program Scholarship , CNPq – National Council for Scientific and Technological Development	Campinas, Brazil
2015	Highest Score on Final Report , Universidade Federal de São Carlos	São Carlos, Brazil
2014	Dean's List Spring , Drexel University	Philadelphia, U.S.A
2012	Dedication Award , Inclusão.com	São Carlos, Brazil
2009	2nd , Internal Programming Olympics, IFTM	Uberaba, Brazil

Publications

- L. David, H. Pedrini, Z. Dias, and A. Rocha, "Authentication of Vincent van Gogh's work," in *19th International Conference on Computer Analysis of Images and Patterns (CAIP)*, in press.
- L. David, H. Pedrini, Z. Dias, and A. Rocha, "Connoisseur: Provenance Analysis in Paintings," in *IEEE Symposium Series on Computational Intelligence (IEEE SSCI)*, in press.

Presentations

Data Week 2020 at Dextra

PRESENTER

Brazil

Nov. 2020

- Presenter for segment titled “Superpowers with Natural Language Processing”, illustrating commercial cases for natural language processing techniques and algorithms.

3rd Online National Congress on Mechanic Engineer and Automation (CONAENGE 2018)

CO-PRESENTER

Brazil

Aug. 2018

- Co-speaker for poster titled “Anomaly Detection and Failure Prediction in Industrial Machinery” (in Portuguese), describing the work performed at Solvian Tech for its multiple clients.

Computer Science Week UFSCar (SECOMP) 2015

PRESENTER

São Carlos, Brazil

Aug. 2015

- Introduced REST based distributed programming, general API usage and model-oriented programming using a custom-made framework named grapher.

Education

Universidade Estadual de Campinas

PHD. IN COMPUTER SCIENCE – MACHINE LEARNING

Campinas, Brazil

Mar. 2021 - current

- Teaching assistant for 616: *Object Oriented Programming* (2017), 616: *Topics on Machine Learning I* - (2018), 619: *Final Project* (2018).

Universidade Estadual de Campinas

M.Sc. IN COMPUTER SCIENCE – MACHINE LEARNING

Campinas, Brazil

Mar. 2016 - Apr. 2019

- Written dissertation named “Connoisseur: Provenance Analysis in Paintings”.
- Teaching assistant for 302: *Object Oriented Programming* (2017), 616: *Topics on Machine Learning I* - (2018), 619: *Final Project* (2018).
- Scored 53 (percentile 99.93%) in the POSCOMP of 2016 (Exame Nacional para Ingresso na Pós-Graduação em Computação).

Universidade Federal de São Carlos

B.S. IN COMPUTER SCIENCE

São Carlos, Brazil

Mar. 2011 - Dec. 2015

- Went to Drexel University at Philadelphia, U.S.A, through the the BSMP/Ciência sem Fronteiras exchange study program.
- Volunteer scientific initiation student. Project: *Twice-around a Shortest-path Tree Significantly Increases the Solution Cost*.
- Development of learning objects with web technologies in extension project named LOA: *Laboratory of Learning Objects*.
- Participated in the Junior Enterprise as developer and commercial manager.

Instituto Federal do Triângulo Mineiro

A.S. COMPUTER TECHNICIAN INTEGRATED HIGH SCHOOL

Uberaba, Brazil

Feb. 2008 - Dec. 2010

- Participated in the school internal Programming Olympics. 2nd place awarded.

Extracurricular Activity

DevFest, GDG Campinas

CONFERENCE PARTICIPANT

Campinas, Brazil

Nov. 2018

- Participant in Computing Conference organized by GDG Campinas.

Stackoverflow, Scikit-learn and Keras

BRIEF SET OF COLLABORATIONS IN FREE SOFTWARE REPOSITORIES

Online

2017 - 2019

- Contribution summaries: [scikit-learn/issues?q=involves:lucasdavid](https://stackoverflow.com/questions/tagged/scikit-learn), [keras/issues?q=involves:lucasdavid](https://stackoverflow.com/questions/tagged/keras), [stackoverflow/ldavid?tab=answers](https://stackoverflow.com/questions/tagged/lucasdavid)
- Computer Science and Machine Learning Blog: lucasdavid.github.io.

SECOMP UNICAMP 2017

COMMITTEE MEMBER

Campinas, Brazil

2017

- Member of organizing committee for the “Semana da computação” (SECOMP) UNICAMP 2017.

Universidade Federal de São Carlos

EXTENSION PROJECT MEMBER

São Carlos, Brazil

2011 - 2013

- Development of learning objects with web technologies in extension project named LOA: *Laboratory of Learning Objects*, 2012.
- Volunteer professor in project related with digital inclusion of children in public schools at the city of São Carlos. The project denominated “*Inclusão.com*” is maintained by the Institute of Mathematical Sciences and Computing at São Paulo University, 2012.
- Member of Junior Enterprise CATI. Activities comprised of presenting programming classes for the company’s members and development of web pages for departments within the University, 2011.