

ALBERTO HIDEKI UEDA

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EDUCATION

Ph.D. Student in Computer Science

Federal University of Minas Gerais (UFMG), Brazil

Visiting Research Student at University of Glasgow, Scotland, UK

Supervisor: Professor Rodrygo Santos

Aug 2017 - Present

Weighted Avg: 96.3%

Mar 2020 - Sep 2020

M.S. in Computer Science

Federal University of Minas Gerais (UFMG), Brazil

Thesis: Reputation in Computer Science on a per Subarea Basis

Supervisor: Professor Berthier Ribeiro-Neto

Aug 2015 - Jul 2017

Weighted Avg: 90.7%

B.S. in Computer Science

University of São Paulo (USP), Brazil

Feb 2006 - Dec 2012

Weighted Avg: 71.0%

RESEARCH AND TEACHING EXPERIENCE

Ph.D. Student

- Integrated large language models (LLMs) to retrieve relevant scientific articles and passages from medical corpora, given information needs expressed in natural language.
- Investigated the use of contextual language models, such as BERT and its variants, to rank biomedical documents in ad-hoc retrieval tasks.
- Awarded an academic merit scholarship for successful academic performance.

M.S. Student

- Designed a novel reputation metric for academic rankings on a per subarea basis using a graph-based scientific index called P-score.
- Third-place award at the WSDM Cup Rank Challenge 2016 (team UFMG/Latin) held by WSDM conference and Microsoft.

Infrastructure Coordinator of Laboratory

Laboratory for Treating Information (LATIN), UFMG.

- In addition to my PhD research, I have served as the infrastructure coordinator for our laboratory, managing server configurations, software environments, and compute resources.

Teaching Assistant

Reviewed the course material, taught classes, and helped grading tests and assignments.

- Information Retrieval, with Prof. Berthier Ribeiro and Prof. Nivio Ziviani (2016).
- Recommender Systems, with Prof. Rodrygo Santos (2018).

SELECTED PUBLICATIONS

Structured Fine-Tuning of Contextual Embeddings for Effective Biomedical Retrieval

A. Ueda, R. Santos, C. Macdonald, I. Ounis. SIGIR. 2021.

University of Glasgow and UFMG at the TREC 2020 Precision Medicine Track

A. Ueda, R. Santos, C. Macdonald, I. Ounis. TREC. 2020.

Random Walks on the Reputation Graph

S. Ribas, A. Ueda, R. Santos, B. Ribeiro-Neto, E. de Souza e Silva, N. Ziviani. ICTIR. 2015.

Using Reference Groups to Assess Academic Productivity in Computer Science

S. Ribas, A. Ueda, B. Ribeiro-Neto, E. de Souza e Silva, N. Ziviani. WWW. 2015.

WORK EXPERIENCE

Programa Capacidades Analíticas - MPMG/UFMG

Fev 2022 - Jul 2023

Technical Lead

Automatic verification of legal requirements of active transparency in public administration of municipalities of the state of Minas Gerais, including data crawling, storage, and validation.

Axxiom Technology and Innovation - CEMIG

Sep 2013 - Jul 2014

Software Engineer

Design, development, and deployment of software improvements in electric power distribution systems.

UOL Universo Online

Fev 2013 - Aug 2013

Software Engineer

Developed Web services to the online trade of discount coupons. Provided maintenance of company products such as its job-seeking platform and antivirus.

Touch Health

Sep 2008 - Jul 2012

Software Developer

Worked on management systems for diagnostic medicine companies, improving the data workflow from the patient registration to the production of structured medical reports.

LANGUAGE

English (IELTS 7.5), Portuguese (native proficiency)

TECHNICAL SKILLS

Programming Languages

Python, C++, Java

Libraries

Jupyter Notebook, Pandas

Other

Git, Bash, LaTeX