

# ALBERTO HIDEKI UEDA

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## EDUCATION

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### Ph.D. Student in Computer Science

Federal University of Minas Gerais (UFMG), Belo Horizonte, Brazil  
Visiting Research Student at University of Glasgow, Scotland, UK

*Aug 2017 - Present*  
Weighted Avg: 96.3%  
*Mar 2020 - Sep 2020*

### M.S. in Computer Science

Federal University of Minas Gerais (UFMG), Belo Horizonte, Brazil  
Thesis: Reputation in Computer Science on a per Subarea Basis

*Aug 2015 - Jul 2017*  
Weighted Avg: 90.7%

### B.S. in Computer Science

University of São Paulo (USP), São Paulo, Brazil

*Feb 2006 - Dec 2012*  
Weighted Avg: 71.0%

## RESEARCH AND TEACHING EXPERIENCE

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### Ph.D. Student

*Aug 2017 - Present*

- Explored the use of contextual language models, such as BERT and its variants, to rank biomedical documents in ad-hoc retrieval tasks.
- Investigated strategies to use structure-based information to estimate document relevance.
- Awarded an academic merit scholarship for successful academic performance.

### M.S. Student

*Aug 2015 - Jul 2017*

- Designed a novel reputation metric for academic rankings on a per subarea basis using a graph-based scientific index called P-score.
- Performed scientific impact evaluation of publications and research groups in Computer Science across different countries, on a subarea level.
- Third-place award at the WSDM Cup Rank Challenge 2016 (team UFMG/Latin) held by WSDM conference and Microsoft.

### Technical Lead of Research Laboratory

*Apr 2017 - Mar 2020*

Laboratory for Treating Information (LATIN), Dept. of Computer Science, UFMG.

- Ensured that the resources and services provided are appropriate and up-to-date. Formulated budgets for the research directors, maintaining an functional laboratory infrastructure.

### Teaching Assistant

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

- Information Retrieval, under the supervision of Prof. Berthier Ribeiro-Neto and Prof. Nivio Ziviani. *Feb 2016 - Jul 2016*
- Recommender Systems, under the supervision of Prof. Rodrygo Santos. *Feb 2018 - Jul 2018*

## SELECTED PUBLICATIONS

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### **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.

### **Online Learning to Rank for Sequential Music Recommendation**

B. Pereira, A. Ueda, G. Penha, R. Santos, N. Ziviani. RecSys. 2019.

### **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

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### **Programa Capacidades Analíticas - MPMG/UFMG**

Belo Horizonte, Brazil

*Technical Lead*

*Fev 2022 - Jul 2023*

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**

Belo Horizonte, Brazil

*Software Engineer*

*Sep 2013 - Jul 2014*

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

### **UOL Universo Online**

São Paulo, Brazil

*Software Engineer*

*Fev 2013 - Aug 2013*

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**

São Paulo, Brazil

*Software Developer*

*Sep 2008 - Jul 2012*

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

## LANGUAGE

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English (IELTS 7.5), Portuguese (native proficiency)

## TECHNICAL SKILLS

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### **Programming Languages**

Python, C++, Java

### **Libraries**

Jupyter Notebook, Pandas

### **Other**

Git, Bash, LaTeX