

Diego MADARIAGA

PERSONAL DATA

PLACE AND DATE OF BIRTH: Santiago, Chile | 5 January 1995
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EDUCATION

CURRENT PhD in Computer Science, **University of Chile**

2018 Master in Computer Science, **University of Chile**
Thesis: "Forecasting Mobile Internet Quality of Service Based on Passive Measurements" | Advisor: Javier BUSTOS JIMÉNEZ

2018 Computer Science Engineer, **University of Chile**

2016 B.Sc. in Computer Science, **University of Chile**

SCHOLARSHIPS AND AWARDS

2019 CONICYT Scholarship, awarded by the Government of Chile to pursue a Ph.D. degree.

2018 Global Leadership Award to finance an internship at Inria Saclay, France. Awarded by the University of Chile.

2018 IFIP TMA Travel Grant to attend TMA Conference and TMA PhD School.

2018 CONICYT Scholarship, awarded by the Government of Chile to pursue a M.Sc. degree.

2014-2017 Outstanding Undergraduate Student Award, Department of Computer Science, University of Chile.

WORK EXPERIENCE

JUL 2017 - JAN 2019 | M.Sc. Student
NIC Chile Research Labs, University of Chile
Implementation of statistical and machine learning-based methods to predict mobile Internet quality of service for specific time and geographic location, using the data collected by many users of [Adkintun Mobile](#) app, which reports QoS indicators such as signal strength received, type of received signal, amount of mobile traffic used, network disconnection events, among others.

SEP-NOV 2018 | Internship, Research Assistant
Institut national de recherche en informatique et en automatique (INRIA Saclay)
Implementation of an adaptive location sampling system, to take samples without a fixed time interval, but with adaptive intervals, taking into account user mobility patterns. Processing and analysis of the collected data, and participation in the writing of technical and scientific documents.

JAN 2016 - MAR 2017	<p>Undergraduate Research Assistant <i>NIC Chile Research Labs, University of Chile</i></p> <p>Android developer at Adkintun Mobile, research project that seeks to evaluate the quality of service delivered by mobile telephone operators. Development and implementation of the module of <i>Active Measurements</i>, which allows, through the execution of different tests, evaluate the quality of current Internet connection. Also, implementation of a web platform in which users of the app can log in by reading a QR code with the app and thus, have access to all the measurements reported by their mobile devices, including visualizations regarding the type of signal received (H, H+, 4G, etc.), the type of Internet connection received (WiFi or Mobile Network), the consumption of mobile data by installed applications and the result of active measurements made by the application.</p>
FEB-MAR 2016	<p>Undergraduate Student Developer <i>Department of Computer Science, Pontifical Catholic University of Chile</i></p> <p>Android development to improve an existing application, using Facebook services to maintain an <i>Android widget</i> in devices with real-time updates. Implementation of a PHP Web Service to perform the communication between Android application and MySQL database.</p>
SEP-DEC 2015	<p>Undergraduate Research Assistant <i>NIC Chile Research Labs, University of Chile</i></p> <p>Android development for electronic voting project based on QR codes MoCa QR, making possible the direct connection between device and printer via USB cable, in order to provide a more secure printing system, avoiding possible Man-In-The-Middle attacks.</p>

TEACHING EXPERIENCE

FALL 2019	<p>Operating Systems, University of Chile (TA) Computer Architecture, University of Chile (TA) Information Visualization, University of Chile (TA)</p>
FALL 2018	<p>Systems Programming, University of Chile (TA)</p>
SPRING 2017	<p>Systems Programming, University of Chile (TA) Introduction to Programming, University of Chile (TA)</p>
FALL 2017	<p>Systems Programming, University of Chile (TA) Theory of Computation, University of Chile (TA)</p>
SPRING 2016	<p>Computer Networks, University of Chile (TA) Information Visualization, University of Chile (TA)</p>

PUBLICATIONS

- 2018 **Madariaga, D.**, Panza, M. and Bustos-Jiménez, J. *DNS Traffic Forecasting Using Deep Neural Networks*. In Proceedings of the 1st International Conference on Machine Learning for Networking, MLN 2018 (to appear).
- 2018 **Madariaga, D.**, Mendoza, G. *PePa Ping: Android Tool to Take and Predict Periodic Passive Ping Measurements*. In Proceedings of IV School on Systems and Networks, SSN 2018. CEUR-WS. pages 9-12. (in Spanish)
- 2018 **Madariaga, D.**, Panza, M. and Bustos-Jiménez, J. *I'm Only Unhappy When It Rains: Forecasting Mobile QoS With Weather Conditions*. In Proceedings of 2018 Network Traffic Measurement and Analysis Conference (TMA). IEEE, 2018. pages 1-6.
- 2017 **Madariaga, D.** *A Proposal for a Mobile Internet QoS Forecasting Method Based on Passive Measurements*. In Proceedings of III Spring School on Networks, SSN 2017. CEUR-WS. pages 24-26. (in Spanish)

LANGUAGES

SPANISH: Native
ENGLISH: Fluent

COMPUTER SKILLS

Languages: Java, C/C++, R, Python
Operating Systems: Linux, Unix, Windows