Diego Madariaga

Personal Data

Place and Date of Birth: Santiago, Chile | 5 January 1995
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Education

Current — Master in Computer Science, **University of Chile**
Thesis: "Forecasting Mobile Internet Quality of Service Based on Passive Measurements" | Advisor: Javier Bustos Jiménez

Jun 2017 — Computer Science Engineer, **University of Chile**

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

Scholarships and Awards

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 Master 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

Current / Jul 2017 — M.Sc. Student
NIC Chile Research Labs, University of Chile
Implementation of statistical and machine learning based models to predict mobile internet quality of service for specific time and geographic location, based on the data collected by 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.

Jan-Mar 2017 — Undergraduate Research Assistant
NIC Chile Research Labs, University of Chile
Implementation for Adkintun Mobile project, 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.

Jan-Dec 2016 — Undergraduate Research Assistant
NIC Chile Research Labs, University of Chile
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 *Active Measurements*, which allows, through the execution of speed test, multimedia content loading test and web site availability test, evaluate in a given moment the quality of current internet connection.

Feb-Mar 2016 | Undergraduate Student Developer
Department of Computer Science, Pontifical Catholic University of Chile
Android development to improve an existing application, using Facebook services to maintain an *Android widget* in devices with real-time updates. Implementation of a PHP Web Service to perform the communication between Android application and MySQL database.

Sep-Dec 2015 | Undergraduate Research Assistant
NIC Chile Research Labs, University of Chile
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.

Teaching Experience

Fall 2018 Systems Programming, **University of Chile** (TA)

Spring 2017 Systems Programming, **University of Chile** (TA)

Spring 2017 Introduction to Programming, **University of Chile** (TA)

Fall 2017 Systems Programming, **University of Chile** (TA)

Fall 2017 Theory of Computation, **University of Chile** (TA)

Spring 2016 Computer Networks, **University of Chile** (TA)

Spring 2016 Information Visualization, **University of Chile** (TA)

Publications

2018 Madariaga, D., Mendoza, G. *PePa Ping: Android Tool to Take and Predict Periodic Passive Ping Measurements*. In Proceedings of School on Systems and Networks (to appear). (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 the 2nd Workshop on Mobile Network Measurement (MNM 2018) (to appear).

2017 Madariaga, D. *A Proposal for a Mobile Internet QoS Forecasting Method Based on Passive Measurements*. In Proceedings of III Spring School on Networks. 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