# Gastón A. Avila, PhD

Physicist, Software developer  
**Python**, **Javascript**, **Linux**

I am Argentinean, living in Córdoba. I like to build things.  
Generalization and solving large problems elegantly and efficiently motivate me. I like big cities and public transport.

## Personal Information:

Date of Birth

16th of august 1982

Nacionalities

Argentine, Italian

Work address

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E-mail

[avila.gas@gmail.com](mailto:avila.gas@gmail.com)

Github

[github.com/avilaton](https://github.com/avilaton)

## Education

2008.05 - 2011.10

*PhD. Theorethical Physics, Potsdam University, Germany.*

Advisor: Prof. Helmut Friedrich. Supported by and carried out at the Max Planck Institute for Gravitational Physics (Albert Einstein Institute)

2002.04 - 2008.04

*Licenciatura en Física, FaMAF, Universidad Nacional de Córdoba, Argentina.*

Graduated March 27th, 2008. Grade point average 9.57 out of 10.

1996 - 2001

High School: Bachiller Técnico Metal-Meácnico especialista en Máquinas Herramienta, Instituto Técnico Renault, Córdoba, Argentina. Graduated with the highest average grade of the class of 2011.

## Informatics skills

Backend

WSGI Python (Django, Flask, Bottle), Node.js (Express.js), RESTful APIs using SWAGGER,

Frontend

Angular.js, Backbone.js, Openlayers.js, Google Maps API v3

Databases

PostgreSQL, SQLite, mongoDB,

GIS, geolocation

OpenStreetMap, JOSM, Mapnik

## Work experience

01/2016 - present

Squaretrade.com, senior web developer. Uses Flask and Angularjs to build an application responsible for the operation of mobile technicians and scheduling/managing phone repairs over different cities in the US. (Flask, Angularjs, Webpack, Postgresql, AWS Elasticbeanstalk).

06/2015 - 01/2016

Junar.com, web UI analyst Senior. Frontend developer. (Django, Backbone).

04/2014 - 06/2016

Ministerio de Transporte de la Provincia de Mendoza, technical advisor in applications to public transit. Web apps for geo-location, data analysis and modeling. Integration Lead for public transit data for google maps.

06/2015 - 11/2015

bahia.presupuestoabierto.org, Web UI analyst. Frontend developer (Angular.js). SQL analyst (Oracle).

08/2014 - 06/2015

Sistemas Globales S. A., Web UI analyst Senior. Tech Lead in hybrid proyect using angularjs + cordova for iPhone. Client: Virgin Mega

04/2013 - 08/2014

Sistemas Globales S. A., web UI analyst. Tech Lead in node.js + Backbone.js. Client: Thomas Cook

12/2011 - 06/2014

Municipalidad de Córdoba, technical advisor in applications to public transit. Comisión de Movilidad Integral. Web apps for geo-location, data analysis and modeling. Responsible for the integration of city transit data with Google Inc.

04/2008 - 11/2011

Max Planck Institute for Gravitational Physics, Albert Einstein Institute.

## Languages

Spanish

Native.

English

Professional proficiency

## Teaching Experience

2010.03 - 2010.09

Teaching Assistant: Classical Mechanics. Potsdam University, Germany.

2007.03 - 2008.03

Teaching Assistant (Type A). FaMAF, UNC, Argentina.

2005.03 - 2007.03

Teaching Assistant (Type B). FaMAF, UNC, Argentina.

## Honors

2001

Graduated Top GPA of the Senior class - Instituto Técnico Renault.

2001

Awarded Academic Excellence Price, by Banco Roela, Argentina.

## Publications

* *Asymptotic staticity and tensor decompositions with fast decay conditions*, (Doctoral disertation), Gastón A Avila, PhD, 07.10.2011. [Institutional Repository of the University of Potsdam](http://opus.kobv.de/ubp/volltexte/2011/5404/)
* *The Yamabe invariant for axially symmetric initial data of two Kerr black holes.* Gastón A Avila and Sergio Dain. [Classical and Quantum Gravity, 25(22):225002 (13pp), 2008.](http://iopscience.iop.org/0264-9381/25/22/225002)

## Talks

* Tensor decompositions with fast decay conditions at space-like infinity, Grav11 - FaMAF, Córdoba, Argentina. 11/04/2011.
* Tensor decompositions with fast decay conditions at space-like infinity, Workshop on Mathematical Relativity - ESI, Vienna, Austria. 28/01/2011.
* The Yamabe invariant for axially symmetric two Kerr black holes initial data, Grav09 - Córdoba Argentina. 15/04/2009.

## Scientific Meetings

* Grav11, Congress on General Relativity and Gravitation (FaMAF), La Cumbre, Córdoba, Argentina. 11/04/2011 - 15/04/2009.
* Workshop on Mathematical Relativity, International Centre for Mathematical Science - Edinburgh, UK. 1/09/2009 - 7/09/2010.
* Seminar on Mathematical Relativity - Erwin Schroedinger Institute, Vienna, Austria. 27/01/2011 - 29/01/2011.
* Space, Time and Beyond. Conference in honor of Helmut Friedrich's birthday. 08/10/2009 - 09/10/2009.
* Grav09, Congress on General Relativity and Gravitation, FaMAF, Córdoba, Argentina. 13/04/2009 - 17/04/2009.
* Grav07, Congress on General Relativity and Gravitation, FaMAF, Córdoba, Argentina. 5/11/2007 - 7/11/2007.
* Grav06, Fifty years of FaMAF Workshop on Global Problems in GR, FaMAF, Córdoba, Argentina. 6/10/2006 - 11/10/2006.

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