## David Zarruk Valencia

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### **EDUCATION**

MA in economics, (GPA: 4.68/5),
Universidad de los Andes, Bogotá, Colombia

BA in mathematics, (GPA: 4.52/5),
Thesis: Solving the Support Vector Machines' optimization problem through k-nearest neighbors search (Grade: 5.0/5.0)
Universidad de los Andes, Bogotá, Colombia

BA in economics, cum laude, (GPA: 4.60/5),
Universidad de los Andes, Bogotá, Colombia

Academic exchange, (GPA: 27.5/30), Università Commerciale Luigi Bocconi, Milan, Italy

2009

### PERSONAL INTERESTS

Macroeconomic theory, development and conflict economics.

### WORKING EXPERIENCE

Research assistant Centro de Estudios sobre Desarrollo Económico - CEDE Universidad de los Andes March 2011 - June 2013

- Co-author of a working paper that studies the impact of crime participation on lower school assistance in Colombia.
- Database construction and consolidation for different projects at CEDE.
- Regression analysis and estimation for research related to conflict, violence, education and poverty.
- Design, simulation and model calibration to estimate the fiscal burden of programs for the displaced population, prepared for the Ministry of Finance.
- Go through national and international economic literature on conflict economics and rural development.

- Analyze and prepare weekly conference presentations on Colombian and international economic conjuncture.
- Participate in the elaboration of monthly and quarterly economic reports on the Colombian economy.
- Elaborate quarterly GDP projections.
- $\bullet$  Collect information of the Colombian economy for database construction.

# ACADEMIC EXPERIENCE

Teaching assistant (for professor Harold Cole):	
Macroeconomic Theory II, PhD in Economics, University of Pennsylvania	2014
Teaching assistant (for professor Harold Cole):	
Monetary and Fiscal Policy, BA in Economics, University of Pennsylvania	2014
<u>Professor:</u>	
MATLAB Introductory Course, BA in Economics, Universidad de los Andes	2013
Graduate instructor:	
Advanced Microeconomics: Game Theory (3.75/4.00), Advanced Macroeconomics: Long Run (3.78/4.00), MA in Economics, Universidad de los Andes	2012 2011
Linear Algebra I (3.64/4.00), Mathematical Methods for Economists (3.61/4.00), BA in Mathematics, Universidad de los Andes	2011 2011
Microeconomics II (3.45/4.00), BA in Economics, Universidad de los Andes	2011, 2012
Introduction to Asymmetric Information and Auction Theory, Diploma on Economics of Risk and Information, Universidad de los Andes	2010
$\label{thm:continuous} \begin{tabular}{ll} Undergraduate\ teaching\ assistant:\ Linear\ Algebra\ II,\ Integral\ Calculus,\ Statist\ Poverty\ and\ Wealth. \end{tabular}$	ics and Probability,
AWARDS	
Best preliminary econometrics exam (8/10) PhD in Economics, University of Pennsylvania	2011
Cum Laude degree in economics (GPA: 4.60/5) BA in Economics, Universidad de los Andes	2011
Scholarship awarded to the best ECAES of Universidad de los Andes MA in Economics, Universidad de los Andes	2011

Academic excellence scholarship (GPA: 5/5), BA in Economics, Universidad de los Andes 2011

Second highest national score in ECAES (Colombian National Exam of Undergraduate Academic Quality), Score: 152

2010

### RESEARCH

'Equidad y Eficiencia Rural en Colombia: Una Discusión de Políticas Para el Acceso a la Tierra', 2012. Working paper, Documento CEDE (2012-38). With Ana María Ibáñez and Margarita Gáfaro.

'On the Determinants of Armed Groups' Demobilization: Analysis of the Colombian Case'. Masters' thesis, 2012. Advisors: Ana María Ibáñez and Daniel Mejía.

'Solving the Support Vector Machines' optimization problem through k-nearest neighbors search', 2012. Working paper. To be published. With Marï $\frac{1}{2}$ a de los  $\frac{1}{2}$ ngeles Gonz $\frac{1}{2}$ lez and Adolfo Quiroz.

'The Costs of Crime and Violence in Colombia: Juvenile Crime and Education.' Working paper, 2012. With Ana María Ibáñez and Catherine Rodriguez.

'Tópicos en Teoría Geométrica de Grupos'. Non-published manuscript, 2011. With Daniele D'Angeli and others. Available from the author upon request.

#### GRANTS

IDB grant for research on the costs of violence and conflict in Latin America and the Caribbean.

2012

### **LANGUAGES**

English (fluent), italian (proficient), portuguese (proficient), spanish (native).