
Education	<ul style="list-style-type: none">• Master of Information Engineering in Computer Science, 2015, Autonomous University of Nuevo León. Overall Grade 94.5/100.0• Bachelor in Mechatronics Engineering, 2012, Autonomous University of Nuevo León, graduated with honors (<i>Mención Honorífica de Excelencia</i>), Overall Grade 95.9/100.0
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Experience	<p>Self-employment, Freelance Consultant. 2015-2016. Coached job applicants and students on computer science and software engineering topics.</p> <ul style="list-style-type: none">• Published implementations of data structures, algorithms, and solutions to programming problems <p>Infosys Ltd, Monterrey, Nuevo León, Mexico Systems Engineer, January 2013 to February 2015. Contractor for a Fortune 100 multinational banking and financial services corporation. Development, administration and support team for a global trade finance application used mainly in North America and Asia</p> <ul style="list-style-type: none">• Coded and tested new agents/batch-jobs and features in Java, C#, JavaScript and Windows Batch• Designed and implemented a Windows Script Host script in JavaScript to retrieve scanned image and metadata files from the scanner workstations to our server and prepare for further processing• Fixed 350 incidents, including code bugs, development of new features, customers with invalid data in production and outages• On-call primary contact for 20 weeks• Led 30 Request For Change procedures to install code updates and to update data via SQL scripts• Supported production and test environments for clients and other teams in the bank <p>Center for the Development of the Software Industry, Monterrey, Nuevo León, Mexico. Software Engineer, October 2012 to January 2013</p> <ul style="list-style-type: none">• Performed testing and quality assurance of an enterprise financial Web platform for a Mexican bank, implemented in Java Enterprise Edition and JavaScript <p>School of Physics and Mathematics at UANL, Monterrey, Nuevo León, Mexico Research Assistant (internship), August 2011 to February 2012</p> <ul style="list-style-type: none">• Developed and maintained robust control systems software in Python, MATLAB and Simulink• Co-authored one published paper: Basin, M.; Serna, M.; Lopez-Hernandez, P.I., Central energy-to-peak filter design for uncertain linear systems, Control Conference (ASCC), June 2013 <p>School of Mechanical and Electrical Engineering at UANL, Monterrey, Nuevo León, Mexico Laboratory Assistant (internship), February 2012 to August 2012</p> <ul style="list-style-type: none">• Supported students in designing and troubleshooting programs in Python, MATLAB and LabVIEW
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Computer Skills	<ul style="list-style-type: none">• Languages: Python, JavaScript, C#, Java, SQL, HTML, CSS, Bash/UNIX Shell Scripting• Data/Databases: Microsoft SQL Server, Oracle, MySQL, SQLite, JSON, YAML, XML• Applications: Microsoft Visual Studio, Visual Studio Code, Git, Toad, Cygwin, Vim, OpenSSH• Technologies: .NET, Java, Node.js, xUnit, Docker, Spring, Hibernate, Jekyll, Sphinx documentation tools• Operating Systems: UNIX (Fedora, Ubuntu, Red Hat Enterprise Linux, Android), Microsoft Windows (Server 2003, XP, Vista, 7, 8, 10)• Design patterns: Dependency Injection, Object-Relational Mapping (ORM), Module, Factory method, Iterator, Reactor, Singleton, Observer
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Projects	<ul style="list-style-type: none">• ASPNET5CO: Advocacy and Community. Efforts to advocate the ASP.NET Core framework, http://pedroivanlopez.com/aspnet5co• Data structures and algorithms in C#, https://github.com/lopezpdvn/DataStructuresAlgorithmsCSharp• mazerob: Bluetooth-remote-control robot implemented with Java Virtual Machines on a PC and a Lego NXT Brick, http://pedroivanlopez.com/mazerob• printer73x: A computer numerical control system for printing binary images, http://pedroivanlopez.com/printer73x
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