

# Alfonso David Kim Quezada

## Personal Data

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## Abstract

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I like to create fast, scalable and elegant computer solutions. I am a team lead with experience fostering collaboration, productivity and communication. Planning and structuring work aligned with the product vision.

I have worked with diverse systems, from small internal tools to complex, client-facing solutions, using multiple programming languages and third-party tools. Additionally, I have designed and tuned machine learning models, from data ingestion to deploying them into a production environment.

In 2016 I received my Master in Computer Science where I specialized in parallel programming and computer architecture.

## Professional Experience

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October 2016 - Today	<b>CTO &amp; Co-founder, The Data Whisperer</b> <ul style="list-style-type: none"><li>• Develop a technical strategy aligned with the company long-term vision</li><li>• Design, test and ensure availability of the Business Continuity Plan</li><li>• Design and implementation of high availability and low latency architectures and data-intensive applications</li><li>• Develop multiple prediction algorithms for the marketing and financial industry</li></ul>
March 2014 - December 2016	<b>Engineering Lead, GMV (Half time)</b> <ul style="list-style-type: none"><li>• Engineering team coordination: work prioritization, allocation and control</li><li>• Enable and boost the communication and collaboration between the development team and many external stakeholders</li><li>• Ensure the best practices of Agile methodology among the distributed teams</li><li>• Guide the hiring process and team expansion plan</li></ul>
January 2012 - December 2013	<b>Principal Software Engineer, Sm4rt Predictive Systems</b> <ul style="list-style-type: none"><li>• Developed complex pipelines to analyze large data sets</li><li>• Created dynamic dashboards to present and compare the KPI of the models</li><li>• Measure, maintain and improve quality in the technological platforms</li><li>• Oversee delivery, provide visibility of progress and performance of the multiple dimensions of the product</li><li>• Design the software architecture and deployment infrastructure of large systems</li><li>• Ensure and improve the reliability of predictive models under unusual high loads</li></ul>
June 2010 - January 2012	<b>Sr. Software Engineer, Sm4rt Predictive Systems</b> <ul style="list-style-type: none"><li>• Design and implementation of multiple machine learning algorithms for bank transactions fraud scoring</li><li>• Design and implementation of ultra-low latency systems for bank transactions fraud scoring</li><li>• Development of automatization pipelines to create machine learning models</li><li>• Design and implementation high performance web sites and RESTful web APIs</li><li>• Cleaning, preparation and protection of huge volumes of data</li><li>• Database design, optimization and maintenance, either relational and non-relational</li></ul>

## Technical Abilities

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Operating Systems	Level	Big Data	Level
Linux   MacOS Windows	Advanced Intermediate	Hadoop   Spark Pig   Impala   Kite   HDFS	Intermediate Basic
Programming		Machine Learning	
Java   Python R   Bash C   C++   Go   CUDA	Advanced Advanced Intermediate	Pandas   Numpy Sklearn   Nltk OpenCV   Pybrain	Advanced Advanced Intermediate
Databases		Cloud Providers	
Postgres MySQL   MongoDB	Advanced Intermediate	Amazon Web Services Digital Ocean   Rackspace	Advanced Basic
Web Development		Virtualization	
Django (python) Play! (Java)	Advanced Intermediate	Docker   Vagrant VirtualBox   VM Ware	Intermediate Basic
Other			
Software Architecture Security	Advanced Intermediate	Web Optimization Database Optimization	Advanced advanced

## Education

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- May 2016 M.S. Computer Science  
**Instituto Tecnológico Autónomo de México**  
Thesis: ColumnSort implementation in the Standard Template Adaptive Parallel Library  
GPA: 90/100 | *Honors*
- August 2015 Short-term Scholar  
**Texas A&M University**, Parasol Lab  
Contributed to the development of parallel sorting algorithms in STAPL
- May 2007 B.S. Computer Engineering  
**Instituto Tecnológico y de Estudios Superiores de Monterrey**, CCM  
GPA: 86/100

## Projects

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- **Credit Card Fraud Prevention:** Built a complete solution using an ensemble of SVM, Random Forests, Neural Networks and PCA. The core was wrapped in a low-latency architecture that fetched and transformed the data from TCP packets and returned in less than 5 milliseconds
- **Ensemble Learning:** Developed an automatization framework to create and optimize numerous machine learning models by exploring the space of algorithms, variables, parameters and other ensemble methods, using different fitness metrics
- **Credit Scoring:** Developed a fraud scoring engine using Random Forest and SVM that improved the accuracy of the former model by 50%
- **Natural Language Processing:** Developed a model for NLP to read tweets and comments from credit holders and classify them with an appropriate response, reducing the human interaction for common responses