



## Software Engineer

Vicente Paul Guerrero Lule

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Software Development, Machine Learning and Data Science.  
Python, django, sklearn, keras, tensorflow, aws, git, docker, CI/CD

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## Profile

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A science enthusiast with extensive experience in model, algorithm and software development. Eight years of experience in software development, three of them focusing on the python language for API and machine learning development and deployment in the cloud. TDD, Scrum and Solution-Oriented describe my way of working. Equally effective in a team environment or as a lone specialist.

## Work Experience

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|-------------------|---|
| 5/2019 –          | <b>Freelance Software Developer</b><br><i>Germany</i> <ul style="list-style-type: none"><li>❖ Software development on Python in a voice assistant large-scale project.</li></ul> python, natural language processing, microservices, gitlab, scrum, ci/cd   |
| 6/2017 – 5/2019   | <b>Software Engineer – in the Intelligent Products team</b><br><i>Leybold GmbH, Cologne</i> <ul style="list-style-type: none"><li>❖ Design and development of a cloud-based data collection strategy from machines in the field and laboratories</li><li>❖ Machine learning models development and clustering analysis</li><li>❖ API development with django</li></ul> python, pandas, numpy, sklearn, tensorflow, keras, flask, django, git, aws |
| 9/2016 – 5/2017   | <b>Freelance Software Developer</b><br><i>Germany</i> <ul style="list-style-type: none"><li>❖ Software Development</li><li>❖ Development of Machine Vision applications</li><li>❖ Algorithm development for optical components alignment</li></ul>  |
| 1/2013 – 8/2016   | <b>Product Developer – Micro Assembly</b><br><i>Micro Automation, St. Leon-Rot</i> <ul style="list-style-type: none"><li>❖ Coordination with research institutions</li><li>❖ Design and development of a software architecture for complex automation processes</li></ul>   |
| 11/2010 – 12/2012 | <b>Research Assistant in the Micro Production department</b><br><i>Fraunhofer-Institute for Production Technologies, Aachen</i> <ul style="list-style-type: none"><li>❖ Design and development of novel concepts for the high precision assembly of optical components</li><li>❖ Development of image-processing-based algorithms</li></ul>   |
| 09/2009 - 08/2010 | <b>Research Assistant (part time) in the Energy Efficient Buildings and Indoor Climate department</b><br><i>E.ON Energy Research Center, RWTH, Aachen</i> <ul style="list-style-type: none"><li>❖ Development of control software for research setups</li></ul>   |

03/2008 – 09/2008    **Entry engineer** in the **Performance** department  
*General Electric, Advanced Turbomachinery Engineering Center,*  
Queretaro, Mexico  
❖ Software development for the analysis of thermodynamic data

## Education

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09/2008 – 08/2010    **Master of Science in Mechatronics**, *Fachhochschule Aachen* (1,3),  
Aachen, Germany  
07/2003 - 02/2008    **Mechanical Engineer, specialty in Design**, *Celaya Technology Institute*  
(1,7), Celaya, Mexico

## Other Experiences

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04/2019 – 04/2019    Training: Moderation, Presentation and Visualization  
06/2018 – 08/2018    Deep Learning Specialization - [Coursera](#)  
11/2017 – 11/2017    Conference: Data Natives 2017. Data driven technologies  
Berlin  
09/2016 – 01/2017    Project Management Certification, ATV, Köln  
10/2016 – 10/2016    Conference: Data Natives 2016. Data driven technologies  
Workshop: Learn Python for Data Analysis  
Berlin

## Publications

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C. Brecher, R. Schmitt, P. Loosen, V. Guerrero, N. Pyschny, A. Pavim,  
A. Gatej. Self-optimizing approach for automated laser resonator  
alignment. Optics and Lasers in Engineering 50 2012, 287-292.

## Language Skills

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Spanish:                    Native speaker  
English:                  Business fluent  
German:                  Fluent

## Programming Languages

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Very good:                Python, django, sklearn, keras, tensorflow, aws, git, docker  
Good:                      .NET (C#), MatLab, SQL

## Interests

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Sports (cycling, swimming, jogging)  
Literature (science, history, philosophy); Traveling  
Mensa.org Member



Cologne. July 5<sup>th</sup>, 2019

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## Annexes

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- ❖ **Projects description**
- ❖ **Recommendation letter: Atlas Copco / Leybold**
- ❖ **Certificate: Scrum Foundation**
- ❖ **Certificate: Certified Project Manager**

# Projects description

## **Freelance Software Developer**

*Germany*  
5/2019 –

- ❖ Microservices development on Python, these are part of a complex system that interprets natural language. The product is a voice assistant system similar to alexa from amazon and others  
python, requests, bottle, scrum, SAFe, ci/cd,

## **Software Engineer – in the Intelligent Products team**

*Leybold GmbH,*  
Cologne  
6/2017 – 5/2019

- ❖ Design and development of a cloud-based data collection strategy.  
Data was coming from a number of sensors installed in machines connected through an IoT Platform.
  - REST API Development in Python using flask and django
  - Data Model design and Databases implementation
  - Deployment of APIs and Databases to AWS
- ❖ Machine learning models development and clustering analysis
  - Linear Models, Neural Networks, Clustering Algorithmspython, flask, django, scikit-learn, keras, pandas, numpy, git, ci/cd, aws

## **Freelance Software Developer**

*Germany*  
9/2016 – 5/2017

- ❖ Integration of Industrial Cameras and Development of Image Processing Scripts for automation applications  
MVTec Halcon, Beckhoff
- ❖ Integration of Industrial cameras and Image Processing Software in C# Applications  
MVTec Halcon, C#, different camera vendors

Joeri Coeckelbergs  
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Atlas Copco Industrial Vacuum Division  
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+49 (0) 171 199 3502

Dear Sir or Madam,

It's my pleasure to recommend Vicente Guerrero as a solid software engineer with keen interest and knowledge in machine learning topics.

Vicente has worked in my team for nearly 2 years as an external consultant. Together we have worked on several projects, but he was mainly focusing on machine learning and AI topics within the team. During this time I can say, I was able to get to know him quite well. Strong determination to achieve results, a hands-on approach and a very likeable social character would describe him very well.

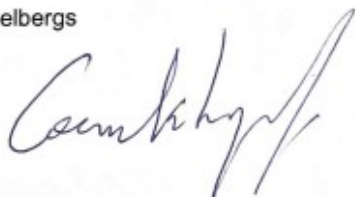
Vicente has shown good software engineering work together with project managing skills. During this project his core task was developing a machine learned algorithm to predict certain variables in our machinery. The work he performed was well documented, well-structured and he thoroughly analyzed the problem before starting with the development of the algorithm. This enables him to learn new skills quite fast.

He also had to manage many other stakeholders, including lab personnel or suppliers. With his good people/social skills and a good joke here and there, this has proven to be no problem for Vicente. He will manage to get things done.

With his good project approach, social skills and a good drive to achieve results, I believe Vicente could really become a key asset for everyone looking for a good software engineer for machine learning and AI topics. If you have any more questions or if you would like to have a chat about Vicente, please feel free to contact me

Kind regards,

Joeri Coeckelbergs



10/04/2019



Akademie



# ZERTIFIKAT

Die TÜV SÜD Akademie bescheinigt, dass

**Vicente Paul Guerrero Lule**

geboren am 02.11.1985 in Celaya, Mexiko  
an der Prüfung

**Foundation in agile project management  
according to SCRUM**

nach den Anforderungen der TÜV SÜD Akademie GmbH – Zertifizierungsstelle für  
Personal, mit Erfolg teilgenommen hat.

Das Zertifikat „Foundation in agile project management according to SCRUM“ nach  
Richtlinien der ITEMO weist Kenntnisse in agilem Projektmanagement nach. Dem  
Zertifikat liegt das Verständnis für die SCRUM-Theorie (gemäß SCRUM Guide™)  
zugrunde. Es bestätigt grundlegendes Wissen zur SCRUM-Philosophie, den  
Ereignissen, Regeln, Rollen, Artefakten und ihren Beziehungen und Wechselwirkungen  
sowie zur Durchführung von SCRUM-Projekten. Eine Vertiefung des Erlernten durch  
praktische Übungen hat stattgefunden.

Zertifikatsnummer 1612#312602637  
Köln, 30.12.2016

Jürgen Merz  
Geschäftsführer  
TÜV SÜD Akademie GmbH

Harald Koelln  
Prüfungsmanagement  
der TÜV SÜD Akademie GmbH



# Herr Vicente Paul Guerrero Lule

geboren am 02.11.1985, hat vom 12.09.2016 bis 01.02.2017  
im Rahmen des General Management Programs

der ATV GmbH in Köln den Titel

## Certified Project Manager

erworben und die Prüfungen  
wie folgt bestanden:

Projektmanagement, MS Project:  
(Gewichtung 1)

Note 2 / 81 Punkte

BWL, Controlling:  
(Gewichtung 1)

Note 1 / 96 Punkte

Projektarbeit:  
(Gewichtung 2)

Note 1 / 98 Punkte

Erstellung eines Projekthandbuchs unter Anwendung von MS-Project.  
Entwicklung, Dokumentation und Präsentation eines Projektplanes am  
realen Praxisbeispiel

Gesamtergebnis:

Note 2 / 93 Punkte

Köln  
01.02.2017

Karin Steiner  
Niederlassungsleitung  
ATV GmbH Köln

100-95 Punkte = 1 • 94-80 Punkte = 2 • 79-65 Punkte = 3 • 64-50 Punkte = 4 • 49-0 Punkte = 5 nicht bestanden



Zertifikatslehrgang in Kooperation mit dem  
„Institut für Marketing und Managemententwicklung centour“,  
Partner der Hochschule für angewandte Wissenschaften München

ATV GmbH  
München | Würzburg | Köln | Leipzig  
[www.atv-seminare.de](http://www.atv-seminare.de)





# General Management Program

## Project Manager

**Zertifikatslehrgang der ATV GmbH**

in Kooperation mit dem INSTITUT FÜR MARKETING UND MANAGEMENTENTWICKLUNG IMM centour  
PARTNER DER HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFT MÜNCHEN

### SEMINARINHALTE

#### **Projektmanagement**

Grundlegende Rahmenbedingungen und Zielsetzungen des Projektmanagements, Terminologie und Methodik der Projektplanung, projektorientierte Ablaufplanung (Netzplantechnik), Anwendung von MS Project, Ressourcenmanagement, Mehrprojekttechnik, Projektcontrolling und Berichtswesen

#### **Betriebswirtschaftslehre**

Projekte aus bilanzieller Sicht, Kosten- und Erfolgsrechnung von Projekten, Bewertungsverfahren langfristiger Projekte, BWL Fallstudie, Business Planning- von der Geschäftsidee zur Umsetzung unter Berücksichtigung von Markt, Chancen und Risiken, Kosten und Finanzierung, Projekte finanzieren, Fundraising, Förderprogramme, Projektanträge

#### **Selbst- und Zeitmanagement**

Ziele klar definieren, planen und ein optimiertes Zeitmanagement effizient strukturieren und fristgerecht umsetzen

#### **Marketingmanagement**

Marktorientierte Unternehmensführung und strategische Planung, Entwicklung von anwendungsorientierte Unternehmens- und Marketingkonzepten

#### **Rhetorik, Präsentation**

Freie Rede, Argumentation, Gesprächsführung und überzeugende Präsentationen, Verhandlungstraining

#### **Persönlichkeitstraining**

Teamtraining, Führungstraining, Moderation, persönliche Marketingstrategien

#### **Projektarbeit**

Entwicklung und Dokumentation eines praxisbezogenen Projektplans unter Anwendung der Software MS Project, Projektbeschreibung, Ablaufplan, Ressourcenplan, Kostenplan

ATV GmbH  
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