

# David Castillo-Sanchez

FULL-STACK WEB DEVELOPER · .NET DEVELOPER

Villahermosa, Tabasco, MEXICO

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## Experience

### Ingeniería Aplicada OnePro S.A. de C.V. - consulting to Compañía Mexicana de Exploraciones S.A. de C.V.

Villahermosa, Tabasco, MX

FULL-STACK WEB DEVELOPER & .NET/PYTHON DEVELOPER

Mar. 2016 - Present

- Collaboration on an ASP.Net MVC 5 app for calculating the daily oil & gas distribution for PEMEX's exploration and production, with data retrieved from diverse institutional databases, including the data visualization for the each point of distribution network.
- Implementation the algorithm for the distribution calculation, including a task queue for running the algorithm without interrupting the web app.
- Development of the UI for the distribution network visualization, with Angular 1.5, Slickgrid, PDFjs and D3js (see side-projects).
- Implementation of a battery of unit tests with Nunit for decreasing the validation time of the results from the distribution calculation, which also allowed to detect errors in the business logic due to bugs in the distribution network design.

### Pemwork SAPI de C.V. - consulting to Compañía Mexicana de Exploraciones S.A. de C.V.

Villahermosa, Tabasco, MX

LEAD FRONT-END WEB DEVELOPER & .NET DEVELOPER

Apr. 2015 - Mar. 2016

- Implementation
- Developed in Cocos2d-x an action puzzle game(Dragon Buster) targeting U.S. market. Implemented API server which is communicating with game client and In-App Store, along with two other team members who wrote the game logic, designed game graphics.
- Won the 2nd prize in final evaluation.

### Compañía Mexicana de Exploraciones S.A. de C.V.

Villahermosa, Tabasco, MX

WEB DEVELOPER & .NET DEVELOPER

Jul. 2014 - Apr. 2015

- Developed in Cocos2d-x an action puzzle game(Dragon Buster) targeting U.S. market. Implemented API server which is communicating with game client and In-App Store, along with two other team members who wrote the game logic, designed game graphics.
- Won the 2nd prize in final evaluation.

### Grupo Empresarial Syfors S.A. de C.V.

Saltillo, Coahuila, MX

WEB DEVELOPER & PHP/ANDROID DEVELOPER

Sep. 2013 - May 2014

- Researched means of retrieving a corresponding video based on image contents using image similarity algorithm.
- Implemented prototype that users can obtain torrent magnet links of corresponding video relevant to an image on web site.

### Freelancer.com

Remote

FREELANCE WEB DEVELOPER & PHP/PYTHON DEVELOPER

Jul. 2012 - Jun. 2013

- Performed research memory management strategies of OS and implemented in Python an interactive simulator for Linux kernel memory management.

### Centro de Investigación en Química Aplicada

Saltillo, Coahuila, MX

GRADUATE RESEARCH IN <NUMERICAL SIMULATION OF POLYMERIC MATERIAL SYNTHESIS>

Apr. 2011 - Sep. 2012

- Developed a proxy drive smartphone application which connects proxy driver and customer. Implemented overall Android application logic and wrote API server for community service, along with lead engineer who designed bidding protocol on raw socket and implemented API server for bidding.

### Centro de Desarrollo Tecnológico IDESA

Coatzacoalcas, Veracruz, MX

UNDERGRADUATE INTERN

Feb. 2009 - Jul. 2010

- Conducted penetration testing on SAMSUNG KNOX, which is solution for enterprise mobile security.
- Conducted penetration testing on SAMSUNG Smart TV.

## Skills

**Programming** Python, C/C++, Scala, JAVA, Node.JS, OCaml, LaTeX  
**Web** Django with Python, Express with Node.JS, HTML5, LESS  
**Languages** Korean, English, Japanese, Chinese

## Education

## Udacity

Online

SENIOR WEB DEVELOPER NANODEGREE (COURSE)

2016 - Present

Relevant coursework: .....

## Udacity

Online

FULL-STACK WEB DEVELOPER NANODEGREE (COURSE)

2016

Relevant coursework: .....

## Udacity

Online

FRONT-END WEB DEVELOPER NANODEGREE (COURSE)

2016

Relevant coursework: .....

## Centro de Investigacion en Quimica Aplicada

Saltillo, Coahuila, MX

M.SC. IN POLYMER SCIENCE AND TECHNOLOGY

2010 - 2012

## Universidad Veracruzana

Coatzacoalcas, Veracruz, MX

B.S. IN CHEMICAL ENGINEERING

2005 - 2010

## Side projects

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### d3-polytree

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CORE DEVELOPER

Apr. 2016 - Present

- Gained expertise in penetration testing areas, especially targeted on web application and software.
- Participated on a lot of hacking competition and won a good award.
- Held several hacking competitions non-profit, just for fun.

### Conekta.io client for .Net

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CORE DEVELOPER

Feb. 2015 - Present

- Gained expertise in hardware hacking areas from penetration testing on several devices including wireless router, smartphone, CCTV and set-top box.
- Trained wannabe hacker about hacking technique from basic to advanced and ethics for white hackers by hosting annual Hacking Camp.

### Highcharts4Net

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CORE DEVELOPER

Aug. 2010 - Present

- Reformed the society focusing on software engineering and building network on and off campus.
- Proposed various marketing and network activities to raise awareness.