Vincenzo Vigilante

Embedded Systems, Machine Learning, Web

Ph.D. on Machine Learning and Computer Vision for embedded devices. 10 years (mixed) experience in development of latency critical, hardware oriented software, network distributed applications and web interfaces.

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Work Experience

Team lead
A.I - Tech s.r.l.

1 year (jan '20 - dec '20)

- Mentoring and managing a team of 4 developers.
- Design of algorithms, protocols and processes.
- Participation to fairs and expositions; interaction with customers and business partners.

Software designer and developer
A.I - Tech s.r.l.

3 years (sep '15 - dec '19)

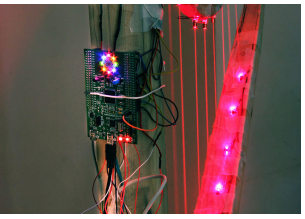
- Computer Vision software optimized to run on board of embedded systems and smart cameras.
- Industrial applications of computer vision.
- Latency critical C++ real-time trading software
- Major contributions that I proposed and developed
  - personally re-wrote various already optimized parts and achieved a 5x-10x net speed improvement;
  - improved company process, automatizing repetitive jobs, promoting new concise and reusable designs;
  - Self monitoring modules to spot bugs at runtime.

Web developer
Studio 109, WebMakeup, Freelance

3 years (dec '12 - sep '15)

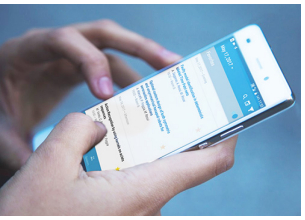
- Team with a designer, a photographer and a developer
- Development of templates and modules for well-known CMSs, development of web applications (e.g ERP).

Projects (non work-related)



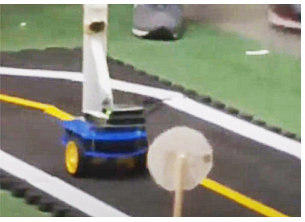
Laser harp

Uses lasers and photoresistors in place of strings. The project included designing and building the hardware as well as the software (sound syntethizer, control logic, interfacing). Demo



Mobile app for conference

Hybrid app for Android and iOs phones, based on Ionic 2 and Cordova, written in Typescript. Interfaces with a REST server written in Java+SQlite. Includes features of calendar, notification, search in list.



Self driving model car

The car is able to autonomously navigate on a simulated road, recognizing road signs, following lanes. The sofware is written in C++ and uses the ROS framework and the OpenCV library.

Find more on my website www.vvigilante.com

Skills

Software engineering

Hw. oriented programming

Machine Vision & Intelligence

Misc. Technologies and Software

- **Preferred languages:** C, C++, Python
- **Additional languages:** JS, Java, MATLAB, PHP, VB.NET
- GNU/Linux, and tools (valgrind, check, make...)
- Database design (relational mostly)
- **Embedded platforms:** STM32, Raspberry Pi & Arduino
- **AI:** Tensorflow, TFLite, Keras, Sklearn, OpenCV, RAPP
- **Web&Mobile:** JQuery, Ionic, Cordova, CMSs
- **Casual:** reversing, electronics, photograpy, 3d printing

Education

Ph.D. - Computer Eng.
Università Degli Studi Di Salerno

3 years (oct '17 - feb '21)

- **Thesis:** Intelligent embedded systems for facial soft biometrics in social robotics.
- **Visiting researcher** 4 months @UTwente (NL).
- Computer vision, machine learning, neural networks, face analysis, intelligent video-surveillance, sound event recognition.
- 14 papers published to major international journals and conferences, 34 citations.
- Sysadmin of the computing cluster.

Master degree - Computer Eng.
Università Degli Studi Di Salerno

110/110 with honors, grade avg: 29.8/30

2 years (oct '15 - sep 17)

Technical leader on many group works: Pacman-playing AI, design of an ARM CPU, control of industrial robots, videogame.

Thesis: wearable fall detection, published.

Bachelor degree - Computer Eng.
Università Degli Studi Di Salerno

110/110 with honors, grade avg: 29.0/30

3 years (oct '12 - sep 15)

High school
Liceo scientifico Da Vinci

100/100 with honors

5 years (sep '07 - jul '12)