

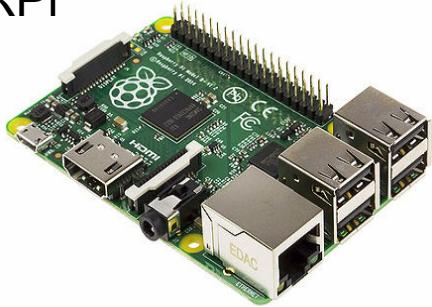


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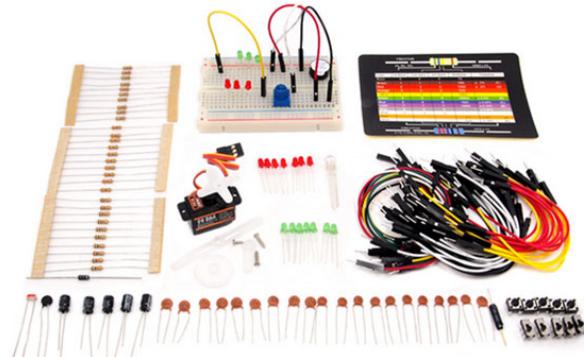


What have we done until now?

RPi



Electronics



Coding



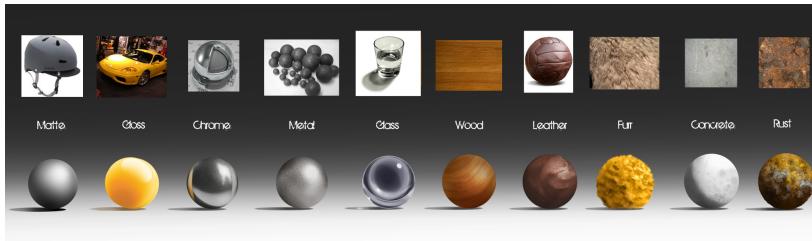
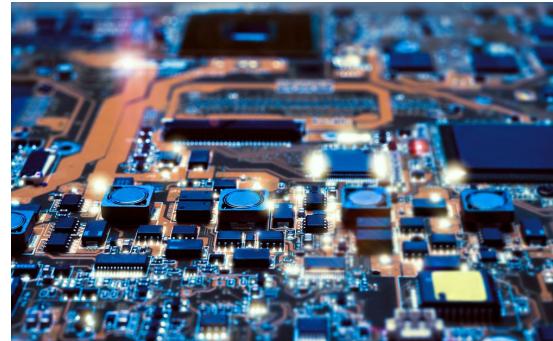
pythonTM



Modern Products



=



Source: Techcrunch, [Suzanne-Helmigh](#)



Where to go further?

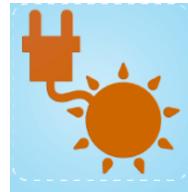
Applications of Big Data in Industry Verticals

Healthcare



- Tracking patients conditions.
- Tracking spread of chronic diseases.

Energy



- Smart meter readers.
- Analysis and management of energy consumption.

Banking



- Monitoring Financial market activity (Analytics & NLP).
- Prevent fraud.

Retail & Sale Trade



- Data from customer loyalty cards (RFID).
- Optimise staffing and products through data from shopping patterns.

Transportation



- Governments: Traffic control, route planning, intelligent transport system.
- Private Sector: Logistic to optimise shipment and revenues (route planning).
- Individuals: Route planning to save in fuel and time.

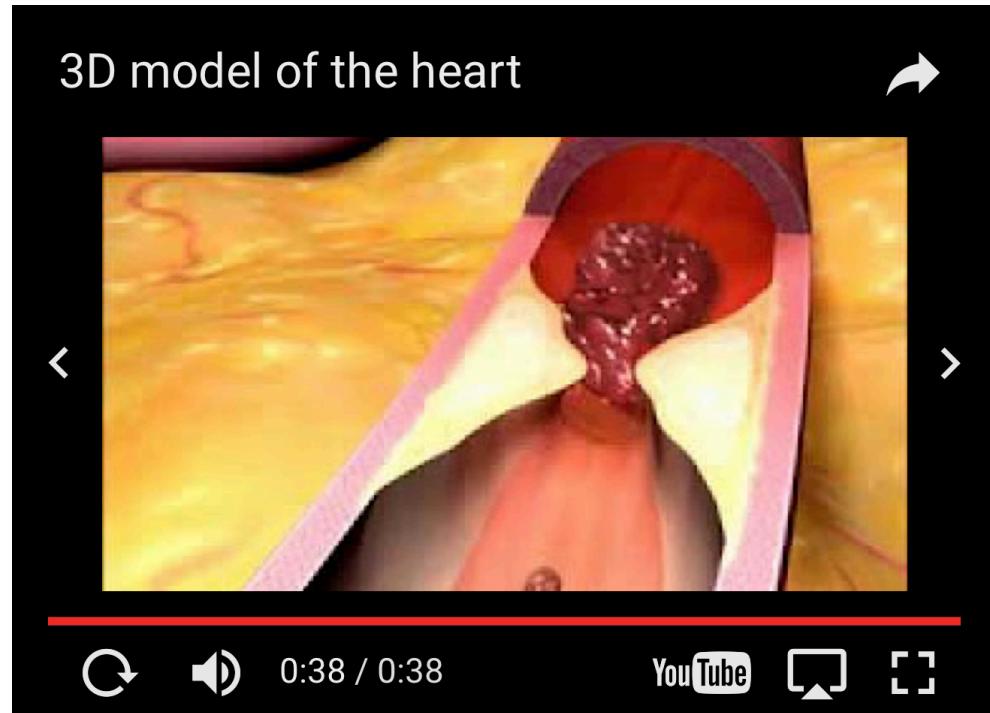


Innovation (developing Ideas)

Healthcare

- Use of Machine Learning (ML) to predict patient survival with serious heart disease.
- It predicts risk faster and more accurately than current methods.
- ML algorithm **learn features** of cardiac function best **predict** heart failure and death.
- These features comes from: magnetic resonance imaging (**MRI**) of the heart, information **from blood tests** and other observations.

Research of Dr Delcan O'Rangan from MRC London Institute of Medical Sciences ([Imperial College](#))

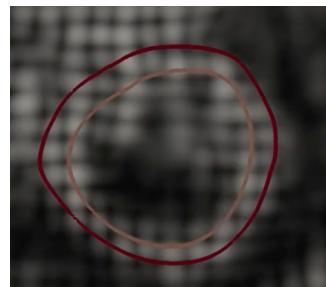




How to make it available to the public?



- Which features were more important for the prediction?
- Which of them came from MRI images and which from blood tests?

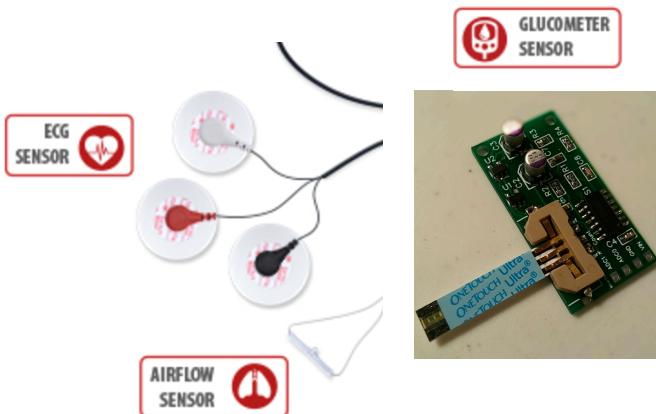
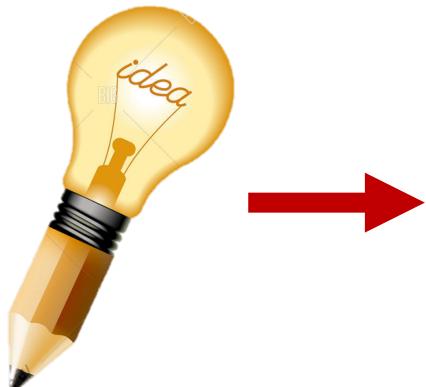


- Features {
- Rate of change of the area of the valve
 - Change of volume (3D model)
 - Cholesterol levels
 - Glucose levels



How to make it available to the public?

- Can we use sensors to measure some of the important features?



Pulse Sensor + RPI



 python™
Machine Learning





Inspiring ideas in Robotics

Life-size BB-8 from household materials



Angelo Casimiro's projects

Physics student from De La Salle University in the Philippines.
<http://www.instructables.com/member/ASCAS/instructables/>

Build A Life-Size Phone Controlled ... ↗

TB

<https://youtu.be/-QbFvDlyy1k>



Inspiring ideas in Robotics

Bluetooth/ WiFi controlled FPV Dron!



<http://www.instructables.com/id/RoverBot-1/>

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