

Webvalley 2018: Looking for new solutions in the fight against pediatric cancer

June 22, 2018

There are eighteen of them. They come from all over Italy and the US: the young budding researchers who together with FBK experts are developing a new solution of Artificial Intelligence for the neuro-oncological patients of the Bambino Gesù of Rome.

For three weeks, Casez di Sanzeno will be at the centre of international research. Work at the WebValley summer camp started on June 17 and will be wrapping up with a public presentation on July 6.

The [eighteen students who passed a selection](#), with more than a hundred participants, will develop together with FBK researchers and clinical experts from the [Bambino Gesù Hospital](#), an [IT platform that will combine blockchain technology and Artificial Intelligence methods](#) as a new tool for the fight against extremely serious pediatric cancers, whose treatment capacity is still limited.

In addition to addressing this **issue of great ethical relevance**, the project of this summer school focuses on the so-called “privacy-by-design” tools, i.e. the consideration of **all the aspects concerning privacy and the processing of personal data** right from the design stage. The goal of the team of researchers and students is to provide medical research with a new tool and at the same time to ensure that patients who share their data always have the ability to check how they have been used. FBK has fielded for this project its Data Science experts coordinated by the ‘Research and innovation for schools’ Unit led by Claudia Dolci: “**WebValley** is our flagship event and has an international scope that we extend with annual projects and individual traineeships to **over 400 students**. Starting this coming school year, the WebValley format moves to schools with the new **FBK@Artigianelli** initiative, where we find our former participants, now university students, who conduct courses and innovation projects”.

Among the tutors, in addition to the **neuro-oncologists** of the Bambino Gesù Hospital, top names in the international research landscape in Artificial Intelligence, including **Aran Khanna**, a very young researcher who developed Amazon’s SmartLens and was among the first to have

identified the problem of personal data management in Facebook (article in independent.co.uk) ; **Luca Antiga** (Orobix), expert in deep learning for medical imaging, and professors **Annalisa Barla** and **Alessandro Verri** from the University of Genoa.

Contributors to the event include international sponsors such as **DBA Group** and **Microsoft Azure**.

The Web Valley formula

The 2018 edition of WebValley, the **Data Science** camp dedicated to high school students organized by Trento-based Fondazione Bruno Kessler, is hosting a team of 8 girls and 10 boys between 17 and 19 years old coming from Italy (7 from Trentino and 7 out-of-Province) and from the United States. The latter were selected among the finalists of the **Intel ISEF Prize**, the world competition for young researchers ([link to the video](#)).

Like every year, the WebValley formula provides for the selection of a small town in the valleys of Trentino in which to build the laboratory of activities, proving the fact that, with a good reason and with Internet resources, research can be done also in apparently more remote areas. Another key feature of WebValley is that it is not school but a real research experience that kids conduct alongside scientists. The initiative started in 2001, has come to its seventeenth edition this year and, in total, over 300 students have participated so far. Some students from past editions have later become international researchers, even at FBK, or have launched start-ups.

Who is Aran Khanna – Web Valley 2018 tutor

Aran Khanna appeared on world news when, in 2015, still a student of Harvard, discovered a security breach in the famous social network Facebook (the Marauder's Map app allowed to locate their friends through Facebook chat data). Since then he has worked at Amazon contributing to major projects in the field of deep learning, in particular as the main developer of DeepLens, the revolutionary device from Amazon and Intel that makes it possible to develop AI tools on miniaturized cameras. Today, he defines himself as an engineer and an AI scientist and is building a platform to manage digital markets, crypto-currencies.

Aran Khanna will participate as a Web Valley tutor in Casez from June 22 to June 30, and will hold a seminar on the frontiers of deep learning – in English, with press invited – on Wednesday, June 27 at 5.30 pm at the Banco primary school (Via della Pontara, 38010 Banco – TN).

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