

AI LAB Case Study



V3 Technology



Founded in 2008, V3 Technology focuses on the development and production of high-performance programmable systems, and provides complete solutions for wireless communication, intelligent vision and test/measurement. Meanwhile, V3 Technology offers customized online and off-line learning courses for college students and engineers. The company has two teaching centers in Beijing and Shanghai respectively.



Challenge

- With the onslaught of exciting trends in Artificial Intelligence (AI), many universities set up related courses.
- Fast-evolving AI knowledge motivates universities to offer AI courses in collaboration with commercial companies. One of these universities teamed up with V3 Technology to deliver an AI/Machine Learning course.
- University departments often have limited budgets for PCs and software, not to mention limited time to set up, configure and verify the necessary development environment for every student.
- A lot of students have personal laptops which could not satisfy the system requirements of the AI software.



Solution

V3 Technology believes that cloud computing offers the best solution for their client university, so the company approached Plunify for the right balance of powerful cloud servers and software development environment. Plunify Cloud is a cloud platform offering on-demand compute resources from multiple cloud providers such as Amazon Web Services (AWS). Plunify customized the platform according to V3 Technology's unique specifications and created AI Lab.

AI Lab allows users to access cloud servers (including FPGA servers) simply via a VNC remote desktop client and to run AI projects in a pre-installed, pre-configured environment. The platform has a pay-per-use cost model which comprehensively covers the usage of compute resources, bandwidth, storage and licenses, etc. Last but not least, AI Lab shares the same user accounts and cloud server options with the underlying Plunify Cloud platform.

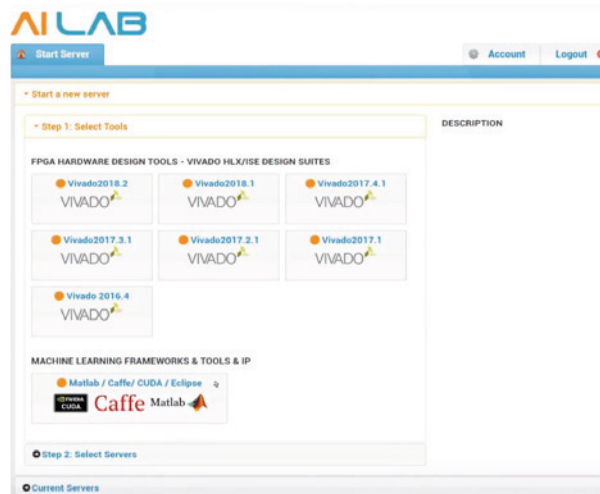


Figure 1 – AI Lab user interface. Users can select desired tools and servers.

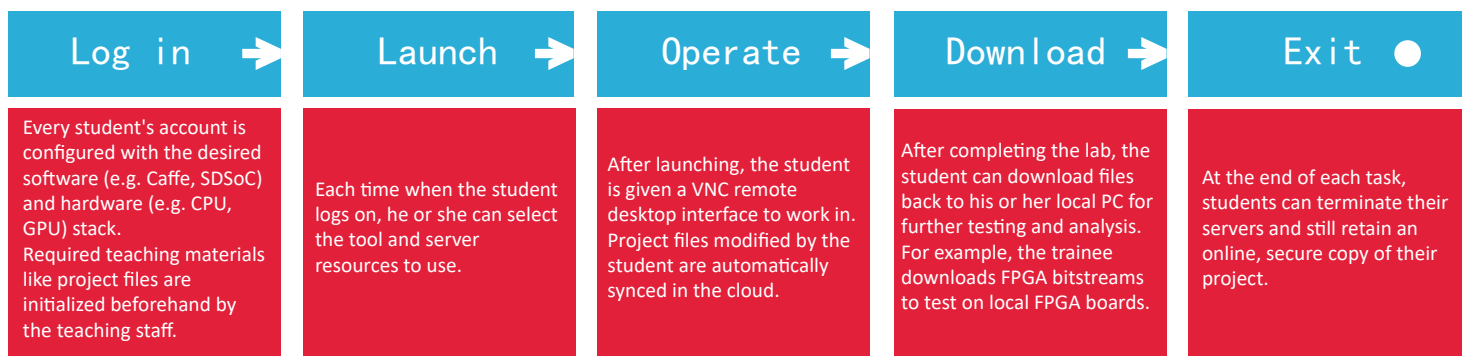


Figure 2 – AI Lab user's flow.

In conclusion, AI Lab is a perfect fit for online education. A teacher or a student needs only a laptop that can run VNC and nothing else. For schools, the platform is more than cost-efficient as it saves a great amount of hassle and budget for purchasing and setting up hardware and software. AI Lab is AI-ready.

“Plunify Cloud – AI Lab helps us solve software environment problems. It allows students to practice projects wherever they are, so long as there is a network connection. It expands our business scope considerably.”

V3 Technology



Results

Plunify's solution not only satisfied the software and hardware requirements of V3 Technology and its client, but also provided extreme flexibility to the students to practice AI projects wherever there was a network connection. Just as importantly, AI Lab offered great value at a cost that fitted within the client's budget.

In a matter of days, V3 Technology and the university was able to go from conceptualizing to launching a full AI course. The availability of great content and an readily-accessible development environment quickly made it popular among students.



About Plunify Cloud

Plunify Cloud is a cloud platform that provides compute solutions using multiple high-performance cloud servers. Its features include:

- providing a customizable platform AI Lab for compute-intensive tasks;
- enabling users to compile, test, and optimize FPGA designs in the cloud via FPGA Expansion Pack, an integrated plugin in Vivado's toolbar;
- supporting InTime, Plunify's FPGA design optimization tool to optimize designs faster in the cloud.

Currently, Plunify Cloud uses AWS servers, with more providers on the horizon.

About Plunify

Plunify helps chip design companies optimize FPGA designs with big data and machine learning. Plunify is headquartered in Singapore. Vivado is a registered trademark of Xilinx, Inc. Plunify Cloud and InTime are registered trademarks of Plunify Pte Ltd.

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