# Development team

## Engineering

Volodymyr Kindratenko - development team lead

Systems engineer/research programmer - TBD

## Postdoctoral research associates

- Postdoctoral Fellow, Deep Learning Project
- Postdoctoral Fellow, NCSA/Cyprus Institute

## Graduate research assistants

Hadi Hashemi <hashemi3@illinois.edu>

Benjamin Rabe <brabe2@illinois.edu>

"*Co-PI Kindratenko,* will lead the development team and oversee the instrument development effort."

"The proposed budget includes funds for 3 staff members: **one systems software engineer**, and **two postdoctoral research associates**, working under the supervision of the management team with the main responsibility of co-developing hardware /software components of the instrument. Jointly, they will develop the instrument over the period of 3 years and will provide assistance in using the instrument by the campus research community. The first two years of the proposal will have a significant effort towards the system-level software development and the last year will focus more on the application-level software. The *development team lead* will be responsible for evaluating technologies of interest, working with IBM, Nvidia, Altera, Mellanox and other vendors on identifying the appropriate components, planning and executing purchase, delivery, assembly, deployment of the hardware, directing co-development of the hardware /software necessary for supporting systems, and application-level software.

*Systems software engineer (SSE)* will be responsible for the development and deployment of the instrument, system-level software, continuous improvements of the software stack, day-to-day operation of the instrument, and interaction with the users. The SSE will coordinate access to the instrument, work with the PIs and user community to develop allocation policies, monitor equipment, provide timely maintenance and repair, develop and deploy tools to gather usage data, and maintain latest software and documentation. The SSE will also contribute to gathering application requirements that will drive the instrument development and to the assessment of the overall effectiveness and usability of the instrument.

The two *postdoctoral research associates* will be responsible for the development of the middleware and application-level software, gathering application requirements, ensuring the instrument meets the requirements, developing tutorials, and carrying out training of new users. One postdoc will work on the development of new and adaptation of existing DL frameworks on the instrument while working with the research teams that utilize these frameworks. The other postdoc will be responsible for the application-level software and development of web-based interface for novice users. The two *graduate students* will assist the SSE and Postdocs with the implementation and evaluation of the instrument, and interface with the research groups interested in using the instrument and assist with code adaptation."