Open position

Frontend developer for health.aiaudit.org
Student Assistant (m/f/d)

Project description

Health AI Auditing
Towards health AI technology that can be trusted for use in real-world applications
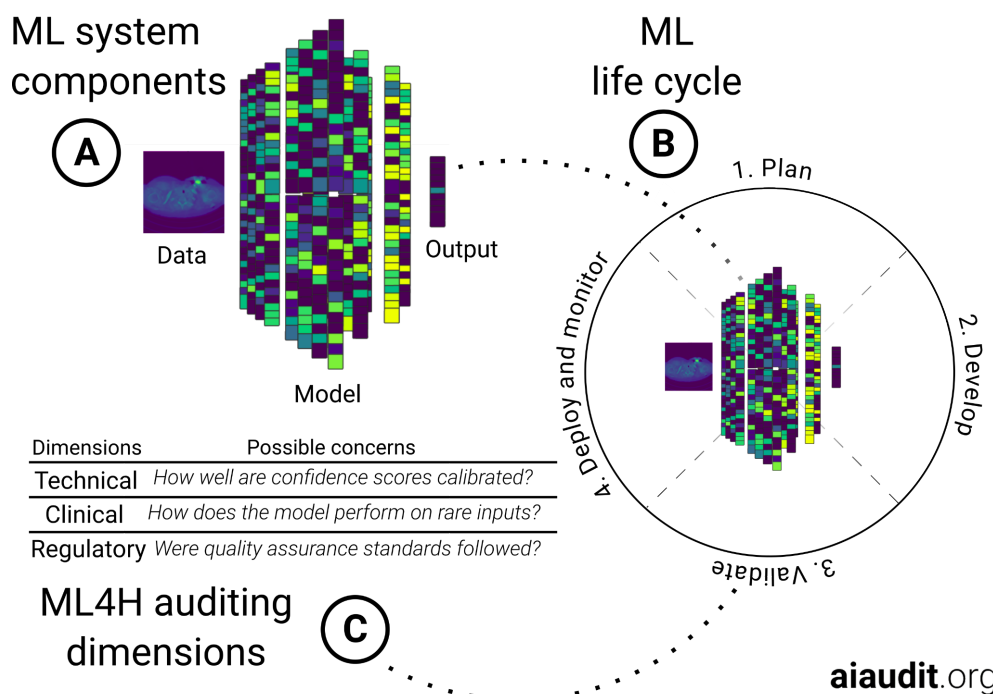
Modern AI systems based on deep learning, reinforcement learning or hybrids thereof constitute a flexible, complex and often opaque technology. Limits to our understanding of an AI system's behavior constitute risks for system failure. Reliably managing the risks associated with modern ML technology remain an open scientific and practical hurdle.

In order to remove these hurdles, we envision a framework for algorithm auditing and quality control along the entire ML4H life cycle that will provide a path towards the effective and reliable application of ML tools in healthcare. For that purpose, we collaborate in the ITU/WHO Focus Group on Artificial Intelligence for Health (FG-AI4H) to design methods, processes and standardization contributing towards AI technology that can be trusted for use in real-world applications

We are working with open source frameworks such as EvalAI (https://health.aiaudit.org/) and MLflow to develop solutions for automated auditing, federated auditing in remote teams and automated report creation.

You can find out more about our work in the following video and paper as well as our code repos and collaboration site.

Position description

Your prospective responsibilities

- Adapt the existing EvalAI-AngularJS based frontend to the new user interface requirements
    - Frontend-user interface design using the AngularJS framework (for both platform admin and other user roles)
    - Frontend-management dashboard GUI design - for challenges, datasets, submitted solutions, and benchmarking results and reporting leaderboards
- Django REST API design - to establish connectivity of frontend modules with other software modules/ packages (e.g. API design for AngularJS - Django backend connectivity)
- Community outreach with the FG-AI4H topic groups

Skills that will help you do well

- Knowledge in ML: model development, deployment and testing
- Knowledge about EvalAI framework: software architecture
- Required: Experience with Python, Node.js, AngularJS, HTML, CSS, Scripting, Django, Docker and Git
- Favorabl: Experience with AWS and Terraform,
- Good command of written and spoken English
- As we are currently working remotely, we especially value an independent and structured work style

Formal requirements

- Student (m/f/d) at a European university (e.g. computer science, engineering). NOTE: We may also be able to offer contracts for non-EU students on a project basis. Please let us know in case this applies to you.
- Because we aim at a longer-term collaboration, you should be enrolled as a student for at least one year.
- At least 60 hours per month, maximum 80 hours per month..

What working with us could look like

We work remotely as our project teams come from different parts of the world. In a typical week, we have one or two group meetings to sync up on work. We like to give all team members time and space to get work done in-between meetings and try to avoid micro-management. Nevertheless, we are there to support each other and use slack, discord as well as email for asynchronous communication. We use git for code versioning, Google docs and markdown for documentation and github projects for task management. For most of the heavy infrastructure (Docker registry, databases, virtual machines/servers, task queuing, worker management) we use AWS products. Every two or three months there is a large plenary meeting for the FG-AI4H. Usually the weeks prior can be a bit more stressful as we prepare to finish up on milestones for presentation. Next to the development of methods and software, we also regularly submit our work to scientific journals or conferences for presentation and discussion.

What you can expect to gain
- Practical experience in machine learning and cloud computing
- A highly motivated, international team
- A meaningful task to build your AI/ML and software portfolio
- Flexible working hours and excellent equipment
- Supervision by experienced practitioners and scientists from renomated companies and research institutes
- Better payment in comparison to university

Contact

If you are interested or have questions, please get in touch with
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You can also apply online via https://recruiting.fraunhofer.de/Vacancies/60609/Description/2