

Bachelor's Thesis Specification



Student: **Zárybnický Jakub**

Programme: Information Technology

Title: **A Haskell Platform for Creating Progressive Web Applications**

Category: Web

Assignment:

1. Study the current state of the Haskell ecosystem for creating web applications.
2. Find suitable libraries as a starting point for creating Progressive Web Applications (PWAs), i.e., web applications that can offer the user functionality such as working offline or push notifications.
3. Implement a framework for PWAs. Focus, in particular, on the implementation of components for offline storage, push notifications, and also support tools.
4. Create a set of example PWAs that utilise the created framework.
5. Compare the created framework with existing (e.g. JavaScript) frameworks for PWAs.
6. Summarise the obtained results and discuss the future work.

Recommended literature:

- State of the Haskell Ecosystem <https://github.com/Gabriel439/post-rtc/blob/master/sotu.md>
- the Reflex-DOM library: <https://github.com/reflex-frp/reflex-dom>
- Bryan O'Sullivan, Don Stewart, and John Goerzen. Real World Haskell. O'Reilly Media, 2008.

Requirements for the first semester:

- First two items of the assignment.

Detailed formal requirements can be found at <http://www.fit.vutbr.cz/info/szz/>

Supervisor: **Lengál Ondřej, Ing., Ph.D.**

Head of Department: Hanáček Petr, doc. Dr. Ing.

Beginning of work: November 1, 2018

Submission deadline: May 15, 2019

Approval date: November 1, 2018