

Radu Hambasan
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SKILLS

- Fluent in Java, C++, C
- Good knowledge of Ruby, Haskell, Javascript, bash/sh
- Basic knowledge of Python, Prolog, SML, MIPS Assembly
- Familiar with Android, R, git, vim, CMake, GNU Make, LaTeX, R, RoR, Heroku, Phabricator, Bluetooth Smart, OpenCV, Nordic SDK (nRF51)

EDUCATION

- **Jacobs University Bremen**, BS in Computer Science, expected 2016
GPA: 1.13 within the major on a 1.0 to 5.0 scale (1.0 is the highest grade, 5.0 the lowest)
Relevant Coursework: Algorithms and Data Structures, Statistical Concepts and Data Analysis with R, Human-Computer Interaction, Operating Systems, Parallel Programming with MPI and OpenMP, Machine Vision.

HONORS

- Member of President's List, Jacobs University, 2013-2014
- Gold Medal, National Physics Olympiad, 2012
- Winner of the Rotary Excellence Award 2010

PRACTICAL EXPERIENCE

Feb 2014 - present **Jacobs University**, *Research Assistant on Math Web Search*

- Replaced the backend database (BerkleyDB) with LevelDB. This led to an approx.. 40% improvement in the indexing time and 60% reduction in the index size.
- Modified the indexing schema to allow Elasticsearch integration.
- Implemented range-based queries.
- Implemented a formula classifier and a formula schematizer.
- Developed and deployed an Android front-end.

June 2014 - Feb 2015 **TobyRich**, *Full Stack Developer*

- Implemented social sharing and flight assist into the Android app.
- Conceived, designed and implemented a novel algorithm for the BLE stack. This enabled low and mid range devices to run the app and fly the Smartplane, which was previously impossible due to a significant lag.
- Developed scripts (bundled into a light Ruby framework) for TI firmware scaffolding.
- Created a Ruby on Rails front-end to insert factory records into a MongoDB database.
- Designed a protocol for SPI communication and wrote an Android app which uses it.

Sep 2014 - Dec 2014 **Jacobs University**, *Teaching Assistant C Lab*

- Helped students understand basic C concepts during their weekly labs and tutorials.
- Graded homeworks and exams.

Feb 2014 - May 2014 **DFKI**, *Research Assistant*

- Further development of the ROCK framework, by augmenting C++ with Ruby, e.g. a Ruby program that analyzes the content of data streams received from sensors.