

# Denis Laure

Curriculum Vitæ

# Education

2013-present **Post-graduate student in Mathematics and Software Engineering for Computers**, *P. G. Demidov Yaroslavl State University*, Yaroslavl, Russia, *Expected graduation: 2018*.

2014–2016 Master student at EIT Digital Master School (double degree programme), major: Human Computer Interaction and Design, specialization: Mobile and Ubiquitous Interaction, entry university: Aalto University, Helsinki, Finland, exit university: KTH Royal Institute of Technology, Stockholm, Sweden, Expected graduation: 2016. http://www.masterschool.eitdigital.eu/programmes/hcid/

2008–2013 **Specialist degree in Applied Mathematics and Information Science**, *P. G. Demidov Yaroslavl State University*, Yaroslavl, Russia.

### Experience

January 2011 – **Yaroslavl FRUCT Laboratory member**, *P. G. Demidov Yaroslavl State* present *University*, Yaroslavl, Russia. http://yar.fruct.org, http://fruct.org

July 2016 – present  ${f Developer},~A.V.~Tikhov~Eye~Microsurgery~Clinic,~Yaroslavl,~Russia.}$  Development of a modern software for eye surgeries. Old software maintenance. http://240000.ru

January 2016 – Master Student, Developer, Ericsson, Stockholm, Sweden.

June 2016 — Development of a framework that allows to easy create tools that use internal simulations software.

http://www.ericsson.com

March 2012 - May Maintenance specialist, Global Corp, Yaroslavl, Russia.

2012 Online electronic payment system maintenance and testing. Company website development.

http://globalcorp.ru

# R&D Projects

December 2015 - GuitarBrush.

January 2016 Visualization of the guitar sound with the use of growing tree metaphor.

• Project Demo: https://www.youtube.com/watch?v=VIJNv0XXMEw

September 2015 – **Tommy Blocks**.

January 2016 Low-polygonal-shaped action blocks toy that was chosen for participation in Student Design Challenge of TEI'16 conference.

Project Diary: https://actionblocks.wordpress.com

• Project Demo: https://www.youtube.com/watch?v=k9IKO3CLBGM

December 2013 - Mobile Health Diaries.

September 2015 Set of mobile health applications for Android platform that include: Blood Pressure Diary, Weight Diary, Healthy Sleep Diary.

o http://fructmd.com/index\_en.html

Blood Pressure Diary:

https://play.google.com/store/apps/details?id = org.fruct.yar.bloodpressurediary

O Blood Pressure Diary Pro:

https://play.google.com/store/apps/details? id = org. fruct.yar.bloodpressurediary.pro

• Weight Diary:

https://play.google.com/store/apps/details?id=org.fruct.yar.weightdiary

O Healthy Sleep Diary:

https://play.google.com/store/apps/details?id=org.fruct.yar.healthysleepdiary

February 2015 – Walky Doggy.

July 2015 Activities stimulating fitness application for Android platform.

https://play.google.com/store/apps/details?id=org.fruct.yar.walkydoggy

August 2013 - RoDaFlow.

November 2013 A framework for development of dataflow network agents for Smart-M3 platform with substitution mechanism.

http://yar.fruct.org/projects/rodaflow

December 2012 – **Explain the Word!**.

April 2013 Game for LG Smart TV platform. Finalist of the LG Smart TV Apps Contest 2012.

May 2012–January Pulse Detector.

2013 Mobile application for heart rate measuring with the use of onboard camera.

http://fruct.org/node/325565

Pulse Detector: http://ovi.sigma.apps.opera.com/en\_se/pulse\_detector.html

• Pulse Detector Pro: http://ovi.sigma.apps.opera.com/en\_se/pulse\_detector\_pro.html

## January 2011 – May Octotask.

2012 Task collector and manager for mobile devices.

- o http://yar.fruct.org/projects/octotask
- o http://fruct.org/octotask
- o publications in application markets:
  - Nokia Store: http://ovi.sigma.apps.opera.com/en\_se/octotask.html
  - Google Play: https://play.google.com/store/apps/details?id=org.fruct.yar.octotask

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# Conference Speeches

- 11-15 November "RoDaFlow: A Framework for Development of Dataflow Network 2013 Agents in Smart-M3 with Substitution Method", 14th Conference of Open Innovations Association FRUCT, Helsinki, Finland.
- 22-26 April 2013 "Improved Algorithm for Heart Rate Measurement Using Mobile Phone Camera", 13th Conference of Open Innovations Association FRUCT and 2nd Seminar on e-Tourism for Karelia and Oulu Region, Petrozavodsk, Russia.
- 5-9 November 2012 **"Heart Rate Measuring Using Mobile Phone's Camera"**, 12th Conference of Open Innovations Association FRUCT and Seminar on e-Tourism, Oulu, Finland.
  - 23-27 April 2012 "Context-Awareness Feature in Octotask Task Manager", 11th Conference of Open Innovations Association FRUCT, St-Petersburg, Russia.
  - 25-29 April 2011 "Octotask Project", 9th Conference of Open Innovations Association FRUCT and the 1st Regional MeeGo Summit Russia Finland, Petrozavodsk, Russia.

## **Participations**

- 12-24 July 2015 **EIT Digital Summer School Health & Wellbeing**, Eindhoven, the Netherlands.
- 26-31 August 2012 "Computer's Continuum: Mathematics, Information, Technologies" Summer School, St-Petersburg, Russia.
- 6-10 August 2012 6th Russian Summer School in Information Retrieval, Yaroslavl, Russia.

#### **Awards**

- November 2015 Winner of the App Hack track at the Time Hack hackathon by Time Village, http://timehack.splashthat.com.
- September 2015 Winner of the Internet of everything Afternoon Hack on IOT.
  - July 2015 Winner of the EIT Digital Summer School on Health & Wellbeing, https://www.eitdigital.eu/news-events/news/article/eit-digital-summer-school-health-and-wellbeing-2015-a-brainiac-work-out/.
  - May 2013 Winner of the English language essays' contest, organized by FRUCT, Aalto University and EIT ICT Labs, http://fruct.org/node/337471.
  - April 2013 Best Demo of 13th FRUCT Conference, for Pulse Detector application.
  - March 2013 Finalist of the LG Smart TV Apps Contest 2012, http://www.lgappscontest.ru/.

#### Languages

English pre-advanced (IELTS score: 7.0)

Russian native

# Computer Skills

OS Debian GNU/Linux, Microsoft Windows, Mac OS X.

Scientific software GNU Octave, MATLAB, LATEX.

Other software Axure, Autodesk Tinkercad.

Programming C/C++, Qt, QML, Java (SE, EE, Android, JavaFX), JavaScript, HTML, Ruby, PHP, Python.

Mobile development Android, Sailfish OS, Tizen, Symbian, Harmattan, Maemo.

## Fields of Interest

Mobile and crossplatform software development Ubiquitous and embedded systems

#### **Publications**

- 1 D. Laure, A. Vasilyev, I. Paramonov, and N. Kasatkina, "Cross-platform development for Sailfish OS and android: Architectural patterns and "Dictionary Trainer" application Case Study," in *Proceedings of the FRUCT'19. Jyväskylä, Finland, 7-11 November 2016*, no. ISBN 978-952-68397-5-2, FRUCT. St.-Petersburg: ITMO University, 2016, pp. 145–150.
- 2 D. Laure, R. Rigo, C. Kortbeek, and C. Grama, "Tommy blocks: a modern redesign of the classical children's building blocks," in *Proceedings of the TEl'16: Tenth International Conference on Tangible, Embedded, and Embodied Interaction*, no. ISBN 978-1-4503-3582-9. ACM, 2016, pp. 738–742.
- 3 D. Laure, O. Medvedev, S. Balandin, and K. Lagutina, "Mobile apps for stimulating healthy life: Walky Doggy reference example," in *Proceedings of the 17th Conference of Open Innovations Association FRUCT. Yaroslavl, Russia, 20-24 April 2015*, no. ISBN 978-5-7577-0493-7, FRUCT. St.-Petersburg: ITMO University, 2015, pp. 110–115.
- 4 D. Laure and I. Paramonov, "RoDaFlow: A framework for development of dataflow network agents in Smart-M3 with substitution method," in *Proceedings of the 14th Conference of Open Innovations Association FRUCT. Helsinki, Finland, November 11-15, 2013*, FRUCT. St.-Petersburg: State University of Aerospace Instrumentation (SUAI), 2013, pp. 57–62.
- 5 D. Laure, I. Paramonov, A. Vasilev, and I. Timofeev, "Agent substitution mechanism for dataflow networks: Case study and implementation in Smart-M3," in *Internet of Things, Smart Spaces, and Next Generation Networking*, ser. Lecture Notes in Computer Science, S. Balandin, S. Andreev, and Y. Koucheryavy, Eds. Springer Berlin Heidelberg, 2013, vol. 8121, pp. 60–71.
- 6 D. Laure and I. Paramonov, "Improved algorithm for heart rate measurement using mobile phone camera," in *Proceedings of the 13th Conference of Open Innovations Association FRUCT and Seminar on e-Tourism. Pertozavodsk, Russia, April 22-26, 2013.* St.-Petersburg: SUAI, 2013, pp. 85–93.

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- 7 D. Laure, "Heart rate measuring using mobile phone's camera," in *Proceedings* of the 12th Conference of Open Innovations Association FRUCT and Seminar on e-Travel. Oulu, Finland, November 5-9, 2012. St.-Petersburg: SUAI, 2012, pp. 272–273.
- 8 D. Laure, I. Paramonov, A. Vasilev, and N. Kozhemyakin, "Preprocessor based approach for cross-platform development with Qt Quick Components," in *Proceedings of the 11th Conference of Open Innovations Association FRUCT. Petrozavodsk, Russia, 23-27 April 2012.* St.-Petersburg: SUAI, 2012, pp. 143–150.
- 9 D. Laure, I. Paramonov, A. Vasilev, and Y. Krupin, "Context-awareness feature in Octotask task manager," in *Proceedings of the 11th Conference of Open Innovations Association FRUCT. Petrozavodsk, Russia, 23-27 April 2012.* St.-Petersburg: SUAI, 2012, pp. 192–193.
- D. Laure, Y. Krupin, A. Abdulloev, I. Paramonov, and A. Vasilev, "Synchronization with external task systems in Octotask application," in *Proceedings of the 10th Conference of Open Innovations Association FRUCT and the 2nd Finnish-Russian Mobile Linux Summit. Tampere, Finland, 7-11 November 2011*, no. ISBN 978-5-8088-0659-7, FRUCT. St.-Petersburg: SUAI, 2011, pp. 76–82.