Andreas Biørn-Hansen

Ph.D. Research Fellow

EDUCATION

Brunel University London

Uxbridge, United Kingdom

Email: Andreas.Biorn-Hansen@kristiania.no

Doctor of Philosophy (PhD), Computer Science

Mar. 2017 -

Westerdals Oslo School of Arts, Communication and Technology

Master of Applied Computer Science - Software Integration

Oslo, Norway Aug. 2014 – July. 2016

Musier of Applied Computer Science - Software Integration

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The Norwegian School of Information Technology

Bachelor of Information Technology - E-Business

Oslo, Norway Aug. 2011 – July. 2014

EXPERIENCE

Kristiania University College

Oslo, Norway

PhD Research Fellow

Oct 2016 - Present

Summary: Working towards a PhD in Computer Science through research carried out at Kristiania UC, with
affiliation to the Mobile Technology Lab research group at the Department of Technology. As part of my fellowship,
I supervise Master and Bachelor students, and develop and teach two undergraduate courses: Introduction to
Programming, and Cross-Platform Mobile Development.

DharmicData Oslo, Norway

Cross-Stack Developer

Apr 2016 - Oct 2016

○ Tasks: My work at DharmicData involved the development of all customer-facing interfaces on Web and mobile. In addition to the technical responsibility of front-end development, I also worked on – and partially designed – the user experience of DharmicData's products.

Foodbird (startup)

Oslo, Norway

Lead Software Developer

Nov 2015 - 2016

- Tasks: Developing a system to streamline ordering takeaway food from restaurants. My tasks involved systems architecture and development, mapping of specifications and requirements, and communication between project owners and development team (two developers).
- o Technologies: Android, iOS, React Native, MongoDB, Parse, Meteor.js, GraphQL, REST.

Norwegian Broadcasting Corporation

Oslo, Norway

Intern

Jun 2015 - Aug 2015

• Tasks: Worked with semantic technologies and data conversion at NRK, the Norwegian Broadcasting Corporation, to increase/enable efficient report generation and data storage. Testing and evaluation of triple stores, and worked on the conversion of old data formats into RDF.

Museai Oslo, Norway

Software Developer - Mobile and Back-end Architecture

Jun 2014 - Aug 2014

• Tasks: Worked as a mobile app developer for Museai, a Norwegian startup focusing on music technology. Responsibilities included the implementation of all design, user experience, and functionality, and communication with back-end. Granted funding by Innovation Norway.

Path AS

Mobile Developer

Lysaker, Norway

Apr 2013 - Nov 2013

• Tasks: Developed Line of Business applications for customers of Path AS. Primary focus was the development of cloud-connected location-based mobile solutions for private security guard companies. All products were developed for Windows Phone and Windows 8 using native technologies, and cross-platform solutions using the Web platform.

Peer-Reviewed Journals

- Andreas Biørn-Hansen, Christoph Rieger, Tor-Morten Grønli, Tim Majchrzak, and Gheorghita Ghinea. An empirical investigation of performance overhead in cross-platform mobile development frameworks. Springer Empirical Software Engineering, -(-), (Accepted)
- Andreas Biørn-Hansen, Tor-Morten Grønli, and Gheorghita Ghinea. A survey and taxonomy of core concepts and research challenges in Cross-Platform mobile development. *ACM Computing Surveys*, 51(5):108:1–108:34, January 2019
- Andreas Biørn-Hansen, Tor-Morten Grønli, and Gheorghita Ghinea. Animations in Cross-Platform mobile applications: An evaluation of tools, metrics and performance. Sensors, 19(9), May 2019
- Andreas Biørn-Hansen, Tor-Morten Grønli, Gheorghita Ghinea, and Sahel Alouneh. An empirical study of Cross-Platform mobile development in industry. Wireless Communications and Mobile Computing, 2019, January 2019

Peer-Reviewed Conferences

- Tor-Morten Grønli, Andreas Biørn-Hansen, and Tim A Majchrzak. Software development for mobile computing, the internet of things and wearable devices: Inspecting the past to understand the future. In Proceedings of the 52nd Hawaii International Conference on System Sciences. ScholarSpace, January 2019
- Tim A Majchrzak, Andreas Biørn-Hansen, and Tor-Morten Grønli. Progressive web apps: the definite approach to Cross-Platform development? In *Proceedings of the 51st Hawaii International Conference on System Sciences*, pages 5735–5745. ScholarSpace, January 2018
- Andreas Biørn-Hansen, Tor-Morten Grønli, and Siri Fagernes. Analysis of feature-completeness in android cross-platform frameworks. In *Proceedings of the 31st Norwegian Informatics Conference*. Bibsys, November 2018
- Andreas Biørn-Hansen and Gheorghita Ghinea. Bridging the gap: Investigating Device-Feature exposure in Cross-Platform development. In *Proceedings of the 51st Hawaii International Conference on System Sciences*, pages 5717–5724. ScholarSpace, 2018
- Andreas Biørn-Hansen, Tor-Morten Grønli, and Gheorghita Ghinea. Baseline requirements for comparative research on Cross-Platform mobile development: A literature survey. In *Proceedings of the 30th Norwegian Informatics Conference*. Bibsys, November 2017
- Andreas Biørn-Hansen, Tim A Majchrzak, and Tor-Morten Grønli. Progressive web apps: The possible web-native unifier for mobile development. In *Proceedings of the 13th International Conference on Web Information Systems and Technologies*, pages 344–351. SCITEPRESS, April 2017
- Tim Majchrzak, Andreas Biørn-Hansen, and Tor-Morten Grønli. Comprehensive analysis of innovative Cross-Platform app development frameworks. In *Proceedings of the 50th Hawaii International Conference on System Sciences*, pages 6162–6171. scholarspace.manoa.hawaii.edu, 2017

Peer-Reviewed Book Chapters

• Andreas Biørn-Hansen, Tim A Majchrzak, and Tor-Morten Grønli. Progressive web apps for the unified development of mobile applications. In Web Information Systems and Technologies, volume 322 of Lecture Notes in Business Information Processing. Springer, July 2018. Extended version of WEBIST 2017 paper