

RESUME

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Education

- 2010 - present** **PhD in Computer Science** **Columbia University**
My research area is operating systems, specifically on mobile and embedded devices. I am working in the Software Systems Lab with a focus on virtualization technologies and operating system principles. My advisor is Jason Nieh. The PhD program consists of a breadth requirement (10 courses), teaching experience, candidacy exam, research, thesis proposal and thesis defense.
- Achievements include:
- Developed OS-based virtualization solution for Android
 - Introduce code review in COMS w4118 operating systems course
 - Linux maintainer of KVM for ARM port.
 - Ported Linux checkpoint/restart to ARM.
- 2008 - 2009** **MS. in Computer Science (GPA 4.06)** **Columbia University**
At Columbia I followed classes and did research on virtualization. The program combined classical classroom education with research.
- Achievements include:
- Started KVM for ARM project capable of running flat binaries inside the hypervisor.
 - Formally verified virtualization primitives on KVM inside the Linux Kernel using model checking techniques.
 - Worked on process virtualization Zap and desktop computer recorder DejaView.
- 2005 - 2008** **B.Sc. in Computer Science** **Copenhagen University**
Study of computer science and mathematics.
- Achievements include:
- B.Sc. Thesis on storage elements in grid computing.
 - Project on recreational route planning in rural environments involving graph theory and optimization algorithms.
- 2003-2004** **Economics** **Copenhagen University**
Studied one year of micro- and macroeconomics, financial math and accounting.

Publications and media

- 2011** "Cells: A Virtual Mobile Smartphone Architecture", Proceedings of the Twenty-third ACM Symposium on Operating Systems Principles (SOSP 2011), Cascais, Portugal.
Best Paper Award
- 2011** "Cells: A Virtual Mobile Smartphone Architecture", Columbia University Technical Report, cucs-022-11, May 2011

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- 2010** Danish newspaper article about ARM virtualization:
"Dansker virtualiserer ARM-processorer med Android og 150 linjer Python-kode" in Version2 on November 11th, 2010.
- 2010** "KVM for ARM", Proceedings of the 12th Annual Linux Symposium, Ottawa, Canada, July 13-16, 2010.
- 2008** Storage Resource in the Minimum Intrusion Grid, B.Sc. Thesis, June 2008

Technical Skills

- Expert** C and C++ programming languages
- Expert** Python, Java, C#, VB.NET, ML programming languages
- Expert** Linux **kernel and driver development**
- Expert** **ARM assembly**
- Expert** ARM architectures including in-depth experience with **ARMv5, ARMv6 and ARMv7** architecture versions.
- Expert** **ARM Virtualization Extensions, Cortex-A15, ARM LPAE**
- Expert** Virtualization technologies
- Expert** **SQL and database technologies** (Oracle, MS SQL, MySql, SqlLite)
- Expert** Bash, Regular Expressions, GNU Makefiles
- Expert** Windows Programming, ASP.NET, SharePoint, Exchange Server Integration, Active Directory
- Proficient** Objective-C and iPhone/iPad development
- Proficient** Web-technologies (HTML, JS, CSS, Django, Ruby on Rails, Umbraco)
- Other** Excellent problem-solving and analytical skills
Excellent at planning, documenting and communicating my work

Teaching Experience

- 2011** Operating Systems COMS w4118 **Columbia University**
New York, USA
- 2005** Introductory math for business majors **Copenhagen Business School**

Professional Activities

- 2010** Reviewer **2nd Asia-Pacific Workshop on Systems 2011**
- 2010** Reviewer **Usenix Annual Technical Conference 2011**

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Professional Experience

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|--------------------|--|--------------------------------------|
| 2011 – 2012 | Apple vs. HTC (ITC 337-TA-797) | Consultant |
| | Source code review and claim construction. | |
| 2011 – 2012 | Consultant | Virtual Open Systems |
| | In Virtual Open Systems I am the developer and maintainer of the KVM for ARM open-source system based on Cortex-A15 and future generation multicore processors. | |
| | I am in charge of planning and implementing the hypervisor and assisting in the planning of services based on KVM technology, which is offered to clients. | |
| 2009 | External consultant | VMWare R&D |
| | The previous internship was quite successful, so we created a contract for 6 months of consulting on MVP after the summer internship ended. | |
| 2009 | Technical Intern | VMWare R&D |
| | As an intern in VMWare I worked on their Mobile Virtualization Platform (MVP). I did work on the hypervisor itself. | |
| | Achievements include: | |
| | <ul style="list-style-type: none">• Scratch implementation of checkpoint/restart in a hypervisor.• Researched x86-based ARM emulation solution for customers. | |
| 2006-2008 | Senior Developer | Carnegie Asset Management A/S |
| | Returned to Carnegie Asset Management as team leader of the developers in the department. | |
| | Achievements include: | |
| | <ul style="list-style-type: none">• Planning and implementation of virtualized infrastructure including remote backup site maintenance.• In charge of creating a development culture within the growing IT team. Focus on things like code review, SCM, SOA and library development in .NET. | |
| 2005-2006 | Consultant | First Treasury A/S |
| | Consultant for the clients of First Treasury, which consisted of Danish pension funds, mortgage companies and investment banks. Tasks ranged from software development to IT strategy consulting. | |
| | Achievements include: | |
| | <ul style="list-style-type: none">• In charge of technical optimization of the financial system installation at one of the biggest Danish credit institutions. Successful outcome.• Assisted customers in creating financial reporting solutions.• Taught internal programming courses to other consultants. | |
| 2001- 2005 | Developer | Carnegie Asset Management A/S |
| | Developing applications for investment banking use concerning stock exchange transactions, performance calculations and statistical calculations. | |

