

# Benjamin Braun

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## Education

- expected **M.S. in Computer Science**, *University of California, San Diego*, La Jolla, CA, 3.96 GPA  
Mar 2016 Specializing in Distributed Systems, Security, and Machine Learning  
**Graduate Coursework:** Distributed Systems, Security, Computer Communication Networks, Cryptography, Artificial Intelligence, Data Mining, Advanced Operating Systems, Algorithms
- Oct 2013 - **M.Sc. coursework in Computer Science**, *Technische Universität München*, Munich, Germany,  
Sep 2014 1.1 GPA (*on a GPA scale from 1.0 to 5.0, 1.0 being best*), completed 67/120 credits  
**Related Coursework:** Machine Learning, Network Security, Efficient Algorithms and Data Structures
- May 2011 - **B.Sc. in Computer Science**, *Technische Universität München*, Munich, Germany, 1.3 GPA  
Oct 2013 **Thesis:** *Measurement-based analysis of wired and mobile Internet topologies* with Prof. Georg Carle, 1.0 GPA

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## Technical Skills

- Languages Python, Java, C, Haskell, Go, SQL, Hive, R, HTML, CSS, JavaScript, PHP, Hack, Bash  
Technologies Git, Apache Spark, MapReduce, Django, Apache, Nginx, SDN, OpenFlow, L<sup>A</sup>T<sub>E</sub>X, Linux

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## Experience

- Jun - Sep **Software Engineering Intern**, *Facebook*, Seattle, WA  
2015 Researched and engineered care automation policies on the Care Machine Learning team using Haskell  
Built a (fake) name classifier that achieved >98% precision with >45% recall  
Deployed automations using the classifier to automate about 140 hours of reports per day in production
- Jan - Aug **Software Development Intern**, *Stadtwerke München GmbH*, Munich, Germany  
2014 Developed a web application to aggregate car sharing providers in Munich  
Analyzed and visualized usage data from multiple car sharing providers  
Used JavaScript (Leaflet.js and jQuery) for the front-end, PHP and MySQL for the back-end
- Jan - Apr **Research Assistant**, *Chair for Network Architectures and Services, TUM, Prof. Georg Carle*  
2013 Investigated and simulated bufferbloat in the Bavarian Public Authorities Network  
Used Python and Mininet for simulations, Wireshark, Python and gnuplot for evaluation
- Oct 2011 - **Teaching Assistant**, *Technische Universität München*, Munich, Germany  
Jul 2012 Led small discussion sections, graded, held office hours  
Spring 2012: *Laboratory: Computer Organization and Computer Architecture*  
Winter 2011/12: *Introduction to Computer Organization and Technology - Computer Architecture*

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## Projects

- Apr 2014 - **Research Project**, *Chair of Communication Networks, TUM, Prof. Wolfgang Kellerer*  
Sep 2014 Developed a prototype implementation of a QoS routing algorithm for SDN using Network Calculus  
Used Java to implement the algorithm as a module for the OpenDaylight controller with OpenFlow 1.3
- Aug 2012 - **TUMBikesharing**, *with a team of TUM: Youth Academy members*  
Dec 2013 Collaborated in the development of bike sharing system for students of TU München  
Led the implementation of an Android and iOS app using Appcelerator Titanium  
Developed the server back-end and REST API using Django

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## Awards and Scholarships

- Oct 2014 **Scholarship for Graduate Studies in the USA**, *DAAD (German Academic Exchange Service)*  
The DAAD awards competitive, merit-based grants to German students for studies and research abroad
- Jan 2014 **Fulbright Scholarship (Nominee)**, *Fulbright Program*
- Oct 2012 **Deutschlandstipendium (German National Scholarship)**, *Technische Universität München*  
Merit-based scholarship for top students of TUM, honoring individual achievements and academic performance
- Sep 2012 **best.in.tum**, *Computer Science Department, Technische Universität München*  
Promotion of outstanding students (best two percent) at the Department of Computer Science