

# Kurt DaCosta

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## SKILLS

Java • JavaScript • Objective-C  
Node.js • Angular.js • Express.js  
PostgreSQL • Redis • NGINX  
UNIX • GIT • REST APIs • SOA  
Amazon Web Services  
EC2 • VPC • S3 • RDS • Redshift

## HACKATHONS

### PENNAPPS WINTER 2015

#### Health Hack Honorable Mention

WanderWise - Haptic feedback navigation for the deaf & blind. Uses OpenCV, RasPi, Arduino, Proximity Sensors, and iOS.

### NEXT 36 HACKATHON 2014

#### 1<sup>st</sup> Place Winner

TipsyLock - Wearable drunk driving deterrent using Nymi ECG and Muse EEG wearables.

## LEADERSHIP

### DEGROOTE ASSOCIATION FOR INFORMATION SYSTEMS

VP Technology (2015 - 2016)  
Hosting business oriented tech talks and networking events.

### HACKITMAC

Technology Exec (2014 - 2016)  
Leading a 16 week workshop on full-stack and iOS development. Hosted guest technical speakers and career development events.

### DELTAHACKS 2015

Logistics Exec (2014 - 2015)  
Lead logistics team for the first ever hackathon at McMaster.  
(300+ students, 20+ sponsors)

## COURSEWORK

### MCMaster UNIVERSITY

Data Structures & Algorithms  
Database Management Systems  
Distributed Computer Systems  
Operations Research

### STANFORD UNIVERSITY

iPhone Application Development

## WORK EXPERIENCE

### DIGITAL MUSIC LAB | RESEARCH ASSISTANT

May 2015 - Present | McMaster University

- Research in the field of Music Information Retrieval (MIR), primarily focused on context based music recommender systems.
- Lead integration of data sharing collaboration with MixRadio, allowing access to streaming music consumption data from 50 million users globally.
- Deployed cloud infrastructure to support cluster computing, distributed web crawling, and data warehousing, improving analytical query times by a factor of 80.
- Implemented data pipeline for automated migration of terabyte scale music consumption database into Redshift data warehouse for analytical processing.

### EGO, INC | PLATFORM ENGINEERING LEAD

February 2015 - September 2015 | Consulting

- Implemented RESTful API with token based authentication for iOS clients.
- Deployed backend on AWS, ensuring scalability, availability and fault-tolerance.
- Utilized relational, document, and key-value data stores to maximize performance.

### DEGROOTE SCHOOL OF BUSINESS | RESEARCH ASSISTANT

June 2014 - December 2014 | McMaster University

- Developed web applications to simplify creation and monitoring of data scraping tasks. Saved over \$7500 per month in human resources.

### WOOF LABS, INC | CO-FOUNDER & ENGINEERING LEAD

Feb 2014 - September 2014 | Toronto, ON

- Woof simplified life for dog parents, a social network of dog lovers and their dogs.
- Deployed service-oriented backend on AWS supporting 60K mobile users globally.
- Migrated activity feeds to an in-memory data store. Improved response time of activity feeds, and reduced load on primary data store.

### NITEROLL, INC | IOS DEVELOPER INTERN

May 2013 - April 2014 | Ottawa, ON

- Implemented event discovery and ticket purchasing on flagship application.
- Developed analytics application to monitor promoter and venue performance.

## RESEARCH

### COGMIR 2015 | GENERAL RECOMMENDATION SYSTEM APPLIED TO MULTI-ATTRIBUTE PRODUCTION METADATA

September 2015 | Ryerson University

- Presented a novel approach to music recommendations using inexplicit user preference for secondary artists involved in a tracks production; these include producers, engineers, vocalists, session musicians, etc.

## EDUCATION

### MCMaster UNIVERSITY | HONOURS B.A.SC, COMPUTER SCIENCE

Expected April 2016 | Hamilton, ON

- Minor, Information Systems - DeGroote School of Business