

# Kapil Arun Garg

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CONTACT INFORMATION      6115 N. Drake Ave      (312) 543-8398  
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<https://www.kgarg.com>

EDUCATION      **Northwestern University**, Evanston, IL  
B.S. and M.S. in Computer Science, June 2017

ACADEMIC EXPERIENCE      **Design, Technology, and Research (DTR)**, Evanston, IL      01/2016 to 06/2017  
Undergraduate Researcher

- Conducted independent research advised by Professor Haoqi Zhang, Professor Darren Gergle, and Yongsung Kim on physical crowdsourcing
- Built and assessed prototypes following agile methodologies using iOS, Node.js, and MongoDB
- Utilized multiple Apple APIs to create novel, low-effort interaction techniques for the iPhone and Apple Watch
- Designed and ran large-scale user studies across campus to gather evidence for research questions
- Currently preparing paper for submission to CSCW 2018

**Northwestern University**, Evanston, IL      01/2016 to 06/2017  
Teaching Assistant

- Lead discussion sections, acted as design mentor (for EECS 330, EECS 395), answered questions on Piazza, and graded assignments
- Classes
  - EECS 330: Human-Computer Interaction (Winter 2016, Winter 2017)
  - EECS 349: Machine Learning (Fall 2016)
  - EECS 395: Tangible Interaction Design and Learning (Spring 2017)

PROFESSIONAL EXPERIENCE      **Delta Lab**, Evanston, IL      11/2017 to present  
Design, Technology, and Research (DTR) Tech Fellow

- Maintain Delta Lab and the DTR program's web presence
- Work on implementing robust versions of various research prototypes for future large-scale deployment using Meteor.js and iOS
- Continue research on physical crowdsourcing, with a focus on developing intelligent and responsive coordination algorithms

**Data Mining & Supply, LLC**, Chicago, IL      07/2016 to 11/2017  
Lead Data Scientist, Partner (<https://datamining.supply/>)

- Assisted in developing core technology and product offering using Node.js and the Google Cloud Platform
- Met weekly to discuss strategy and direction for the business
- Conducted analysis of data for clients in Python and JavaScript using proprietary tools
- Consulted on how best to create and data and AI strategy for a medium-sized company looking to invest in new technology

**Anjoui Technologies**, Evanston, IL  
 Chief Technology Officer, Co-Founder 05/2015 to 01/2016

- Led technical team on developing iOS application, website, and analytics work for a food sharing platform
- Formalized framework for recommendation algorithms used to advise cooks on pricing and diners on dishes to eat next
- Coordinated with other team members to develop and test business model and business pitch

**SapientNitro**, Chicago, IL  
 Associate, Marketing Strategy and Analysis 06/2014 to 11/2016  
 (Data Scientist and Software Developer)

- Worked with an interdisciplinary research team of software engineers, data scientists, architects, ethnographers, and social scientists to study human behavior and worked with clients on how best to improve or expand existing products
- Developed statistical and predictive models for customer segmentation, shopping habits, room occupancy, and space utilization using multi-million instance data sets of digital activity and sensor data
- Analyzed, implemented, and measured the viability of machine learning algorithms to model kitchen activities using data collected from third-party sensors in R and Python
- Assisted in building a web-based community management platform for 700+ members using Angular.js, d3.js, and PHP
- Researched methods and designed algorithms to relate linear digital activity data to non-linear episodes of focus

**SapientNitro**, Chicago, IL  
 Junior Associate, Technology (Data Analyst Intern) 06/2013 to 09/2013

- Devised algorithm to differentiate between speakers using 7-frequency microphone and unsupervised machine learning models
- Modeled posture of surgeons in operating room environment using Microsoft Kinect skeleton data
- Implemented a text classification tool in Java to categorize thousands of unknown website URLs in digital activity dataset

AWARDS AND HONORS

**Northwestern University Undergraduate Research Grant**  
 For LES with DTR 03/2016 to 06/2016

SKILLS

**Proficient:** Python, R, HTML, JavaScript, Node.js, Express.js, MongoDB, MySQL, Swift, iOS Development (iPhone and Apple Watch)

**Intermediate:** CSS, jQuery, Angular.js, Meteor.js, Bootstrap, Flask, Google Script, Slack Bots, Cordova/Phone Gap, Elasticsearch, L<sup>A</sup>T<sub>E</sub>X

**Familiar:** Redis, Java, C#, d3.js, React.js, Django

**Data Science:** Jupyter Notebooks, Pandas, Numpy, Scikit Learn, Weka, Natural Language Processing (NLP) Techniques, Tensorflow (familiar)

**Hardware:** Arduino, Raspberry Pi, Breadboarding, Printed Circuit Board (PCB)  
Design (familiar)