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## WORK EXPERIENCE

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<b>Data Scientist</b>	<b>Gobble Inc</b>	<b>Aug 2017-Present</b>
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- Increased orders by 2% by designing and developing a personalized meal recommendation engine using hybrid filtering. Experimented with collaborative filtering and deep learning models.
- Improved churn prediction accuracy from zero to 89% by designing churn prediction model using logistic regression. Experimented with random forest and AdaBoost.
- Reduced time to build continuous integration and continuous deployment pipeline for data science applications from 4 weeks to 1 hour by architecting and developing a general framework.
- Researched and experimented with association rule learning based recommendations.

<b>Graduate Research Assistant</b>	<b>University of Southern California</b>	<b>Aug 2012-Dec 2016</b>
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- Achieved 97% accuracy in user tracking using Bluetooth scans by researching a novel clustering algorithm.
- Researched and developed a privacy-preserving data-mining framework using k-anonymity.
- Designed and developed an anomaly detection system using time-series interactions and navigational patterns to prevent overloading of web servers by Bots.
- Designed and developed an anonymous, scalable Bluetooth data collection service using NoSQL Database.

<b>Graduate Research Intern</b>	<b>University of California Berkeley</b>	<b>May 2011 – Aug 2011</b>
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- Designed and developed a validation framework using distributed crawling for safe web browsing scheme.

<b>Security Research</b>	<b>McAfee, India</b>	<b>Aug 2009 – July 2010</b>
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- Researched application protocols used for network communication to identify application signatures.
- Designed regular expression-based language for writing signatures for application firewall gateway.

<b>Security Research</b>	<b>IPolicyNetworks, India</b>	<b>Jun 2007 – July 2009</b>
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- Researched vulnerabilities and communication protocols to create intrusion detection signatures.

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## EDUCATION

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<b>California, United States</b>	<b>University of Southern California</b>	<b>Aug 2010 – Dec 2016</b>
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- Pursued Ph.D. in Computer Science, Aug 2012 – Dec 2016. GPA: 3.61/4.0
- M.S. in Computer Science, May 2012. GPA: 3.63/4.0.
- Graduate Coursework: Algorithms; Machine Learning; Database Systems; Computer Networks.

<b>Punjab, India</b>	<b>Punjab Technical University</b>	<b>Aug 2003 – May 2007</b>
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- B.Tech in Computer Science, May 2007

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## Skills

- Python, SQL, C, C++, Java, MySQL, Postgres, Mongo DB, RedShift, AWS Lambda, AWS Batch, CloudWatch
- Pandas, Scikit-learn, NumPy, SciPy, Keras, Docker, CircleCI, Spark, Git, Django, Heroku, AWS, Looker, Boto3
- Regression, Classification, Clustering, Recommendation Systems, Forecasting Systems, Anomaly Detection, Deep Learning, CNN, RNN, Reinforcement Learning
- Agile Development, Distributed Systems, Service Oriented Architectures, Rest API, Test driven development

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## Publications and Awards

- Cross-App Tracking via Nearby Bluetooth Low Energy Devices. In: Proceedings of the Eighth ACM Conference on Data and Application Security and Privacy, 2018.
- Critter: Content-Rich Traffic Trace Repository. In: Proceedings of the 2014 ACM Workshop on Information Sharing & Collaborative Security. ACM. 2014
- Team Innovation Award, McAfee, India, 2010