

Vedant Goyal

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EDUCATION

- **University of California, San Diego** San Diego, CA
Master of Science, Computer Science; GPA: NA Sep 2018 – Present
- **University of Minnesota, Twin Cities** Minneapolis, MN
Bachelor of Computer Engineering; GPA: 3.90 Aug 2014 – Dec 2017

EXPERIENCE

- **Boston Scientific** Minneapolis, MN
Software Engineer May 2017 - Aug 2017, Apr 2018 - Aug 2018
 - **Predictive Risk Modelling:** Identified over 50% of high risk suppliers by creating predictive model based on supply base data to proactively mitigate quality issues and prevent field failures in critical medical devices
 - **Data Warehousing:** Delivered real time supplier performance by building SQL server database and metrics processing engine for quality records using SQLAlchemy, Pandas and PyQt
- **Medtronic** Minneapolis, MN
Software Engineering Intern May 2016- Aug 2016
 - **Testing Framework:** Created automated C++ testing framework for patient management devices which simulated different event states when uploading data to cloud servers using Quantum Platform
- **PledgeMe** Minneapolis, MN
Ruby on Rails App Development Jan 2015 - Aug 2015
 - **User Roles and Permissions:** Implemented authorization and access for different user access levels
 - **API Management:** API integration for Facebook, Twitter and Bitly with RESTful Design and OAuth Security
 - **Responsiveness:** Made application responsive and fluid for mobile devices by redesigning pages, improving content compression and optimization
- **University of Minnesota** Minneapolis, MN
Teaching Assistant and Outreach Jan 2015 - Dec 2017
 - **Teaching Assistant - C++:** Taught Lab sections for undergraduate course 'C/C++ for Scientists and Engineers', assisted in office hours and grading
 - **MnDRIVE Outreach Scholar:** Taught Arduino development, programming and robot design to K-12 students. Mentored robotics teams, organized workshops and summer tech camps

PROJECTS

- **Cinema Analytics** Oct 2017 - Nov 2017
 - Analyzed movie datasets to identify trends and insights in movie success, consumer interest and other attributes using Cluster Analysis and Regression Algorithms
 - Used Apache Cassandra and Spark connected framework to handle large volume of data and achieve fast queries
- **Stochastic Computing Methods** Aug 2016 - May 2017
 - Designed novel logic circuits with extremely high efficiency compared to those used conventionally using random bit-streams
 - Created custom python modules that perform a range of mathematical operations in a stochastic bit-stream paradigm for these novel circuits
- **Predictive Crime Mapping** Apr 2017 - May 2017
 - Created predictive crime hot spot mapping based on Minneapolis crime data using Naive Bayes, Decision Trees and ANN algorithms
- **Group Testing Algorithms** Nov 2015 - April 2016
 - Developed efficient group testing algorithms that work non-adaptively on large graphs with special schemes like unreliable nodes
 - Implemented simulations of C++ algorithms on large graphs with over 10 million nodes using OpenMP to leverage parallel processing at Minnesota Supercomputing Institute