

NICHOLAS CLAUS

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EDUCATION:

- **University of Pennsylvania**, School of Engineering and Applied Science, Philadelphia, PA
Master of Science in Engineering, Mechanical Engineering & Applied Mechanics, December 2014
- **Technical University**, Bangalore, India
Bachelor of Engineering, Mechanical Engineering, May 2009

ENGINEERING / RESEARCH EXPERIENCE:

- **Mechanical Engineer, Dept. of Engine Manufacturing, John Deere India Limited** (2009 – 2013):
 - Planned and controlled production of Engine Block and Head; updated and maintained control plans
 - Analyzed and solved quality improvement issues on manufacturing line, made design suggestions
 - Communicated with cross functional department heads for solving other critical issues
 - Trained new employees on manufacturing line, promoted Kaizen activities
 - Participated in new tool trials and developed revised part programming codes on Machine Centers
 - Supervised tool changing activities on SPMs and Machine Centers, and part inspection on CMM*Projects:* Cycle-time reduction, Improvement in bill of processes, Line balancing, overall cost reduction
- **Intern, Jektron Engineers Pvt. Ltd. Pune, India** (Summer 2008): Gained exposure in different manufacturing processes in dairy and food processing industry. Developed a 'Can Scrubber' as a final project.
- **Research Assistant:** for a project on "Alliances and Acquisitions" at the Wharton School (Fall 2013)
- **Teaching Assistant:** for "Product Design" at the Wharton School, "Vibrations of Mechanical Systems" and "Elements of Mechanical Design" at School of Engineering and Applied Mechanics (Fall 2013-Spring 2014)

TECHNICAL SKILLS:

- **Languages / Software:** C, C++, Metrowerks CodeWarrior, Auto-CAD, MATLAB-Simulink, Master-CAM, ANSYS(Learning), Auto-LISP, Pro-E Wildfire, HTML, NX-5, Ruby on Rails
- **Working Platforms:** Windows 98/2K/XP, DOS **Applications:** MS Word, Excel, PowerPoint, Project, Outlook

DESIGN PROJECTS:

- **Design and Manufacturing of Mechanical Auto-Feed Gearbox for Column Type Drilling Machine:** Devised an automatic gearbox for providing infinite speed-feed for drilling in range of materials with different drill diameters, and an automatic depth adjustment mechanism for drilling blind holes (Fall 2014)
- **Pro-E:** Worked on featured based modeling, family tables and relations, 3D to 2D and associativity, assembly, and sheet metal operations. Designed a fuel injector for motor bike as a small project. (Summer 2014)
- **ANSYS** (Self training): Completed small projects in ANSYS such as stress analysis of a cantilever beam, and spur gears, during undergraduate curriculum. Currently under self training to recollect previously learned principles. (Spring 2014)
- **iPollo USB charger:** Developed a working prototype of a solar operated charger for electronic USB devices. The product was developed from the recognition of customer needs, market segmentation, concept generation, to making the working prototype. The modeling was done in Pro-E and manufacturing was in-house. (Spring 2014)
- **Flying Robot:** Worked on the development and analysis of Flying Robots, funded by DARPA. Developed a prototype of a two rotor system, performed its dynamic analysis to see the effect of forces induced due to the torque on the system which could be used for its directional control. The goal was to develop a sturdy flying mechanism which is lighter, easier to control, and withstands forces induced while flying. (Fall 2013)
- **Bomb Defusing Robot:** Designed and built an autonomous robot which finds and touches an IR LED blinking with a particular frequency. Motorola MC9S12C32 micro-controller was used for programming the robot. The programming was done in embedded C using Metrowerks CodeWarrior as an IDE. (Fall 2013)
- **Wireless Planar Robot:** Designed and built a planar robot with the help of a windows based onboard computer. The robot was programmed in MATLAB for object detection and obstacle avoidance. A vision system was developed with a 640 x 480 pixel webcam, for motion planning and object recognition. (Spring 2013)

PATRICIA VENTI
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EDUCATION

University of Pennsylvania, School of Engineering and Applied Science, Philadelphia, PA
Candidate for **Master of Science in Engineering, Computer & Information Science**, May 2015

GPA: 3.62/4.00

Relevant Courses: Machine Learning, Software Systems, Database & Information Systems, Networked Systems, Computer & Network Security

Rutgers University, College of Engineering, New Brunswick, NJ

Bachelor of Science in Engineering, Computer Science, *magna cum laude*, May 2011

Cumulative GPA: 3.73/4.00

COMPUTER SKILLS

Languages: Java, C++, C, HTML, XML/XSLT, SQL, Oracle 8i, Perl

Operating Systems: UNIX, Linux, MS-DOS, Windows 9x/NT/2000/XP, OS X

Applications: Maple, MATLAB, MS Office, Dreamweaver, FrontPage

PROJECTS

- Implemented scaled down operating system in C with message passing, command interpreter, ftp, remote login and telnet
- Created package tracking system with a Java Windows client, a CGI enhanced web-site client, and a server/database in C++. All three communicated using TCP/IP protocols via a network

TECHNICAL EXPERIENCE

Primera Controls, Newark, NJ (2011 - 2013)

Software Process Engineer

- Evaluated software designs and assessed software complexity
- Generated reports on quality of software for review by upper level management
- Surveyed the plant and resolved developers' operations needs
- Created online help file containing software development procedures and policies for Software Eng. Institute auditors

Cemco Computer Center, Newark, NJ (Summer 2010)

Software Engineer

- Developed projects for the embedded system of high current ion implanter.
- Conducted initial feasibility review, requirement identification, design, implementation, test and maintenance of the software products.

ABC International, Inc., Austin, TX (Summer 2009)

Application Developer

- Served as Assistant Database Administrator, helping the configuration of the server and the design of development databases in Oracle
- Performed Oracle application development in Pro*C and Oraperl
- Intranet applications developed were used to determine the feasibility of a campus-wide web front-end to an Oracle RDBMS