Steve Rogers

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An experience technology and versatile inventor with a passion for creating and enabling intelligent machines to interact with our human world. I am educated and experienced as a physicist, engineer, programmer, electronics designer, team builder and leader. I have designed and worked with automotive service products, robotics, aircraft systems, specialized audio/video servers, camera design, image recognition, precision sensors, artificial intelligence/inference engines, user interface/user experience design, RF communications systems, web technology and networking. I have over 50 issued U.S. patents (plus European/Asian counterparts) with many more pending. I play basketball, cook, love my family and have fun in everything.

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EXPERIENCE

Vice President of Engineering (2/20 to present)

Snap-on Equipment, an international division of Snap-on Incorporated Products: Automotive service equipment

Responsible for Research and Product Development worldwide with a multi-million dollar budget and a very strong worldwide, multidisciplinary engineering team of Hardware, Software, Mechanical, Systems and Algorithm engineers across seven countries. Global product development responsibility for Wheel Alignment (passenger vehicle and heavy-duty truck), Advanced Driver Assist Systems (ADAS) Calibrations, Collision Repair, Tire Tread Measurement, Wheel Balancing, Tire Changers and Test Lanes. Highly focused on maintaining an excellent connection with our primary customers; Automotive OEMs, garage owners and service technicians. Experienced leader in Value Analysis and Continuous Improvement processes. Successfully improved the product development process by introducing Agile and Concurrent Development thereby accelerating product time to market by 50% while achieving a 30% reduction in warranty events year over year. Introduced product innovations in user interface architecture, camera based measurement analytics (live and remote), cloud connectivity, server based data mining, management dashboards, mobile applications and "over-the-air" software/data updates. Ongoing member of a select management team presenting quarterly business status to the Chairman of Snap-on Inc. and staff.

Director of Engineering - Worldwide Critical Measuring (1/11 to 2/20)

Snap-on Equipment, Conway, AR

Responsible for worldwide Research and Product Development of Snap-on's Critical Measuring products including Wheel Alignment and Collision Repair product lines. Directed and coordinated a large diverse team in five countries. Key member of Division staff and quarterly business status review team.

Electronics and Research Engineering Manager (8/03 to 01/11)

Snap-On Equipment, Conway, AR

Directed staff of highly skilled hardware/firmware design engineers. Selected and directed the design of alignment, collision repair and tool control products worldwide. Personally worked as lead electronics research and design engineer on all major projects.

Vice President Product Development (11/02 to 8/03)

InTheAirNet, Irvine, CA

Products: Custom in-flight entertainment, airborne TV, data communications and streaming media servers for commercial and business aircraft.

Directed a staff of highly innovative engineers. Overall project management of simultaneous multi-million dollar product design and development projects in the demanding aircraft industry. Customers included Airbus, Boeing, Delta Airlines, Panasonic, Thales, etc. Responsibilities included sales and marketing for the airborne server product family, implementing new Engineering Department processes to achieve ISO/AS certification within one year and implementing common components, documents, and processes across multiple companies within corporate group.

Vice President Sales and Marketing; (8/01 to 11/02)

Audio International, N. Little Rock AR Division of United Technologies Products: Custom in-flight entertainment and cabin management system for private and business aircraft.

Directed Sales, Marketing, System Engineering, and Product Management with responsibility for \$25M+\$ in revenue.

- Established sales plan by customer and by product line.
- · Revamped advertising and marketing plans to target new sales plan.
- Established Product Council to prioritize Engineering resources.
- Managed System Engineering; established standard product offerings.
- Responsible for negotiating multi-million dollar contracts.
- Utilized contract R&D groups to accelerate development of products.
- Established key high-level relationships with customers and suppliers.

Vice President of Engineering; (2/99 to 8/01)

Audio International; Division of United Technologies

Responsible for 50+ Electrical, Mechanical, Software Engineers and \$7M+ budget. Products developed include:

- First ever Ethernet streaming entertainment system.
- High-end audio/video equipment including on demand systems.
- Custom cabin management system with touch screen controls.
- Custom in-flight office LAN with Internet access.
- Innovative MPEG-2 Audio/Video distribution system based on TCP/IP.
- Established procedures leading to ISO-9000 certification.
- · Key change agent in migrating to an e-business type business model.
- Established design reviews, cost accounting, design for manufacturing and more stringent design standards.

Chief Electronics Engineer & Sr. Staff Engineer; (1/94 to 2/99)

John Bean Company; Division of Snap-on Inc. (Previously FMC)

Products: Computerized automotive suspension alignment systems, computerized tire balancing machines, and other non-electronic garage equipment.

Responsible for all electronic technical content of John Bean shop equipment and managed international team of Software Engineers for the Worldwide Snap-on Under-Car Group.

- Set design standards and methodologies of all Electrical Engineers.
- Established abstracted development methodologies for Software Eng.
- Developed Snap-on Integration Standards for shop network connectivity.
- High profile technical contact for international customer accounts.
- Patented new Web based software technologies and techniques.
- Key member of corporate e-business team. Named to Information Week's first-ever e-business 100 as an innovative leader.

Sr. Project Engineer (5/86 to 1/94)

John Bean Company; Division of Snap-on Inc. (Previously FMC)

Senior Design Engineer- Computer Aid Manufacturing, (6/81 to 5/86)

Motorola Inc. Mobile Communications Division Ft Worth, Texas 76113

EDUCATION

Bachelor of Science; Major-Physics, Minors-Math & Computer Science

U.S. Patent

Patent Title

- 1. 5,054,918 Light System for Measurement of Orientation and Physical Features of a Workpiece
- 2. 5,103,595 Apparatus and Method for Reducing Vibration Characteristics in a Wheel Rim and Tire Assembly
- 3. 5,109,715 Location Designator for Wheel Service Machines
- 4. 5,201,224 Apparatus and Method for Sensing Unbalance Force and Location through Frequency Modulation
- 5. 5,208,646 Wheel Alignment System
- 6. 5,220,399 Wide Angle Wheel Alignment System
- 7. 5,307,279 Self Diagnostic Wheel Balancer
- 8. 5,385,045 Tire Changing and Balancing Machine
- 9. 5,592,383 Wheel Aligner Cordless Communications Unit
- 10. 5,602,733 Automotive Service Equipment Expert System
- 11. 5,734,569 Computer interface board for electronic automotive vehicle service equipment
- 12. 5,999,867 Computer interface board for electronic automotive vehicle service equipment
- 13. 6,085,428 Hands free automotive service system
- 14. 6,282,469 Computerized automotive service equipment using multipoint serial link data transmission protocols
- 15. 6,285,932 Computerized automotive service system (Internet connected)
- 6,405,111 System and method for distributed computer automotive service equipment
- 17. 6,560,516 Method for conducting vehicle diagnostic analyses using distributed structure
- 18. 6,564,128 System and method for distributed computer automotive service equipment
- 19. 6,826,532 Hands free automotive service system
- 20. 6,859,699 Network-based method and system for distributing data
- 21. 7,307,737 Three-dimensional (3D) measuring with multiple reference frames
- 22. 7,313,869 Vehicle wheel alignment system and methodology
- 23. 7,369,222 Wheel Aligner Measurement Module Attachment System
- 24. 7,458,165 Vehicle wheel alignment system and methodology
- 25. 7,581,324 Wheel Alignment System Using Smart MEMS
- 26. 7,684,026 Fault tolerant wheel alignment head and system
- 27. 7,703,213 Vehicle wheel alignment system and methodology
- 28. 7,855,783 Improved integrated Circuit Image Sensor for Wheel Alignment Systems
- 29. 7,917,259 Distributed Vehicle Service Method and System
- 30. 7,937,844 Vehicle wheel alignment system and methodology
- 31. 8,032,279 Wheel alignment head and system with advanced power management
- 32. 8,073,586 Wireless network and methodology for automotive service systems
- 33. 8,353,456 Image-based inventory control system
- 34. 8,452,484 Wireless network and methodology for automotive service
- 35. 8,539,684 Vehicle wheel alignment system and methodology
- 36. 8,693,286 Position measurement for collision repair systems
- 37. 8,904,654 Vehicle wheel alignment system and methodology
- 38. 9,122,999 Image-based inventory control system
- 39. 9,577,866 Distributed vehicle service method and system
- 40. 9,587,934 Vehicle wheel alignment system and methodology
- 41. 9,626,559 Target marking for secure logo validation process
- 42. D782524 Display panel or portion thereof with animated graphical user interface
- 43. D782525 Display panel or portion thereof with animated graphical user interface
- 44. D783044 Display panel or portion thereof with animated graphical user interface
- 45. D783669 Display panel or portion thereof with animated graphical user interface
- 46. 10,072,926 Wheel aligner with advances diagnostic and no-stop positioning
- 47. 10,284,777 Self-calibrating multi-camera alignment system
- 48. 10,347,006 Vehicle wheel alignment methods and systems
- 49. 10,371,509 Wheel Aligner with advanced diagnostics and no-stop positioning
- 50. 10,473,458 Self-Calibrating Wheel Aligner with improved portability
- 51. 10,508,907 Wheel Aligner with advanced diagnostics and no-stop positioning
- 52. 10,567,650 Control system for a self-calibrating multi-camera alignment system
- 53. 10,670,392 Wheel aligner with advanced diagnostics and no-stop positioning
- 54. 10,692,241 Vehicle wheel alignment methods and systems

Numerous associated European and Asian patents