

John V. Bergman III

San Jose, CA

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MECHANICAL ENGINEERING

Performance driven engineer with 15 years experience and successful track history designing, developing, modifying, and evaluating complex electro-mechanical systems. High technical proficiency to accurately complete detailed documentation. Demonstrated communication skills; able to explain complex concepts and ideas to non-technical individuals. Equally effective as team player and individual contributor. Recognized as quick learner who is efficient, precise, reliable, responsible, and dependable.

TECHNICAL SKILLS

Skills: CAD modeling, CNC Programming, Plastic, machined, sheet metal, mechanism and fastener design, mechatronics, Finite Element Analysis, drafting, GD&T, manufacturing, Design of Experiments, Thermodynamics, Tribology

Applications: MS Office, Creo, EPDM, Creo Simulate, Solidworks, Solidworks Simulation, AutoCAD, Dimension 3D printing, MATLAB, Visio, LabView, FlowTherm, MasterCAM, SurfCAM

Languages: G code, Visual Basic, C++, Linux, UNIX, HTML

PROFESSIONAL EXPERIENCE

BERGMAN PROTOTYPING AND RACING, Owner, San Jose, CA

Mechanical Design Engineer (Jan 2018- Present)

Consulting Service for Mechanical Design Engineering & Industrial Design and in-house 3-axis CNC machined parts (aluminum, plastic, Steel, etc) & TIG welding & Fabrication.

XIMEDICA (formally ACCELBIOTECH), Employee, Los Gatos, CA

Senior Mechanical Design Engineer (Sep 2016- Jan 2020)

Mechanical Engineered and CAD designed solutions for liquid handling products.

- Designed cartridge processing robots for various clients.
- Hands on machining, building, and testing prototypes.

TECAN SYSTEMS, Employee, San Jose, CA

Staff Mechanical Design Engineer (May 2015- Sep 2016)

Mechanical Engineered and CAD designed solutions for liquid handling products.

- Designed and branded OEM Carvro OMNI Flex robot platform and implemented it to be quickly adapted and customized by at least two future customer needs.
- Diagnosed and implemented design change to XC pump and ceramic shear valve components

VARIAN MEDICAL SYSTEMS –ONCOLOGY, Contract, Palo Alto, CA

Mechanical Design Engineer (Apr 2014- July 2015)

Mechanical Engineered and CAD designed solutions for Continuing Engineering of multi-million dollar radiotherapy/radiosurgery medical device.

- Redesigned precision EDM manufactured servo motor couplers as MIM part.
- Redesigned and repackaged high voltage components for driving linear accelerator.

STELLARTECH RESEARCH CORPORATION, Employee, Sunnyvale, CA

Mechanical Design Engineer (Jun 2010- Apr 2014)

CAD designed, drafted, and rapid prototyped medical devices, disposables, and mechanisms.

- Designed disposable and implantable devices for human use.
- Designed plastic enclosures and sheet metal chassis for a RF and radiation therapy generators.
- Developed and performed design reviews and tolerance analysis presentations for design solutions.

BAE SYSTEMS, Employee, Santa Clara, CA

Mechanical Design Engineer (Sep 2008- Apr 2010)

Product improvements on hybrid propulsion systems for military ground vehicles including Manned Ground Vehicle, Armed Robotic Vehicle, and Bradley Fighting Vehicle. CAD designed, drafted, and rapid prototyped tools, mechanisms, and vehicle components.

- Developed and performed PDR and CDR presentations for design solutions.
- Designed 4-in-1 tool to install/remove custom quick release fittings. Resulted in saving money by designing only one tool to satisfy the requirements.
- Designed complex mechanism to protect critical radio cables. Saved project by offering the only design concept that satisfied and exceeded the customer's requirements.
- Created test plans for safely testing autonomous robotic vehicle for system checkout, 6x6 dynamometer, roadway simulator, and mobility testing. Impressed National Robotics Engineering Center's director with level of detail and competency.
- Demonstrated competence in ergonomics, GD&T, vehicle dynamics, electric motor design, commercial brake design, fastener design, sheet metal design, and suspension design.
- Participated in documenting design process for company standard.

AVAGO TECHNOLOGIES, Contract, San Jose, CA

Mechanical Engineer (Jun 2007- Aug 2008)

Worked with optical laser navigation R&D team to develop and test new prototypes for personal computer mouse that tracks on glass. Product released to market by Logitech, known as Darkfield Mouse.

- Designed and built fixture for optical sensor to track finger movements for cell phones.
- Designed and built 4-axis fixture to control and increment laser and sensor positioning.
- Assembled small component parts and utilized measurement devices like oscilloscope, jeweler's scope, calipers, and multimeter.
- CAD designed and wrote CNC script to fabricate new prototype configurations and fixtures.
- Utilized Labview, MatLab, and Linux to collect and analyze laser-sensor positioning, laser power, optical resolution, frame rate, velocity, and acceleration.

CERTIFICATIONS

- Sheet Metal Design Certification, PTC University
- Mechanism Design And Analysis Certification, PTC University
- Mold Design Certification, PTC University
- Advanced Electric Motor Design Certification, SAE

PROFESSIONAL AFFILIATIONS

- Member: American Society of Mechanical Engineers (ASME)
- Member: Society of Automobile Engineers (SAE)

EDUCATION

M.S. Mechanical Engineering Santa Clara University, Santa Clara, CA (Winter 09-Spring 15)

3.5 GPA Coursework: CNC I & II, Project Management, Law Technology and Intellectual Property, Design of Plastic Materials, Biomedical Device: Role of Polymers, Nano-Bioengineering, CAD of Mechanisms, Advanced Engineering Mathematics, Alternative Energy Systems, Vehicle Design, and Linear Algebra

B.S. Mechanical Engineering, Mechanical Design, San Jose State University, San Jose, CA

Coursework: CAD, Finite Element Analysis, Mechatronics, Biomechanics, Machine Design, C++, Circuit Analysis, Strength of Materials, Thermodynamics, Heat and Mass Transfer, Vibrations and Control, Dynamics, Fluid Mechanics, Quantum Physics, Differential Equations, and Automotive Engineering.

A.S. Physics, A.S. Mathematics, A.A. Liberal Arts, West Valley College