SAMUEL SMITH

Phone: 555-555-5555
e.mail@gmail.com

EXECUTIVE SUMMARY

Executive and scientist with interdisciplinary background and experience in leading scientific research and product development initiatives for existing/emerging technologies and medical devices. Able to effectively evaluate product development strategies from an engineering, technological and clinical perspective to determine feasibility, safety, efficacy and business potential. Extends analysis into diagnostic thinking with products that make sense and demonstrate strong market potential. Establishes objectives and creates roadmap for successful product development, validation, manufacturability and clinical collaboration.

Integral contributor to technological product development, commercialization and delivery. Knowledgeable in developing **ex-vivo testing** methodologies. Designed and conducted experiments involving **tension analysis, spectroscopy, imaging,** and **fiber optics.** Experienced in **fabrication of crystals** by **micro-particles, thin film processing, digital VLSI/FPGA** design and **embedded systems** design.

Visionary strategist and exceptionally quick study who is willing to explore new concepts, lead cross-functional teams, manage and coordinate complex product design procedures, and ensure all quality standards necessary to deliver innovative technologies/products and to achieve corporate objectives related to revenue, profit and competitive market advantage

EXPERIENCE

NAME OF UNIVERSITY, Department of Surgery, City, State — July 2007 to Present

Biodesign & Innovation Fellow

- Key member of 3-member team that includes an engineer, a surgeon and a business person experienced in startup environments. Charged with developing an innovative medical device from ideation through market launch.
- Observed and analyzed clinical/surgical procedures; identified and evaluated over 250 concepts, narrowed the field to 12, developed the engineering/market analysis for all 12.
- Selected 1 product for development that has the potential to revolutionize tension-free hernia surgical treatment, provide better patient outcomes and dramatically reduce the current 20%+ recurrence rate. Initial 18-month product development investment was $1.1 million and the annual revenue potential is expected to be $41 million by year 5.
- Directed root-cause analysis of approximately 15 commercial mesh products currently available, quantified source of recurrence of 20% in tension-free hernia repair and established ex-vivo experimental methodologies for characterizing mesh products.
- Developed prototypes for proof of concept, and wrote validation protocols for new product development, as well as upgrade methodologies for next generation product development.

NAME OF UNIVERSITY, Department of Physics & Optical Science, City, State — January 2003 – June 2007

Research Assistant / Teaching Assistant

- Investigated coupling and transport phenomena through whispering gallery modes in chains and 3D lattices formed by spherical micro-particles. Investigated spatio-spectral properties in polycrystalline opals.
- Taught 8 sections of undergraduate physics labs involving physics, electronics and optics.
- Evaluated and graded students; coordinated lab equipment for physics labs.

NAME OF COMPANY., City, State — September 2001 – December 2001

Intern

- Designed and developed hardware/firmware for precise control of stepper motors in position control system.

Name of Company, Hyderabad, A.P., India — July 1998 – July 2000

Design Engineer / Intern

- Designed product hardware for company specializing in development/manufacture of helicopter batteries.
- Promoted from intern to full- time design engineer for newly formed division that developed products for defense department.
- Conducted feasibility studies; coordinated with vendors/mechanical engineers in prototype/manufacturing process development.
- Created new design using micro-controller; convinced Project Manager of results and exceeded corporate expectations for size/thickness tolerances; delivered superior product on time and under budget.

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EDUCATION

Ph.D., Optical Science and Engineering, Name of University at City, City, State, 2XXX
Dissertation: "Optical properties of polycrystalline opals and Mesoscopic systems of coupled spherical cavities"

M.S.E., Electrical Engineering, Name of State University, City, State, 2XXX

B.Tech., Electronics & Communication Engineering, National Institute of Technology, Warangal, A.P., India, 1999

RELEVANT COURSEWORK

Optical Properties of Materials, Integrated Photonics, Electromagnetic Waves, Mathematical Methods for Optical Science & Eng, Principles of Geometrical Optics, Light Sources and Detectors, Computer Communication Design, Circuit Design with PLD's & FPGA's, VLSI Processing, Microelectronic systems, VLSI synthesis & Optimization, Computer Architecture, Microprocessors, Digital System Design, VLSI Testing/Testability

AREAS OF EXPERTISE

Spectroscopy & Imaging:	Imaging Spectrometer, Spectrum Analyzer, Lasers, OPO, Long- focus Objectives, Microscopes, CCD cameras SEM and AFM
Fiber Optics:	Regular and D-shaped polymer fibers
Colloidal crystals:	Growth of 3D crystals of microspheres, opal polishing and cutting
Modeling:	Translight, LabVIEW, LightTools, Xilinx foundation series and Cadence CAD tools
Languages:	C, C++, Assembly language (MC68K, MSP430, H8/300H, TMS320F24x), VHDL and MATLAB
Micro Electronics:	Knowledge of Photolithography, Etching, Oxidation and Film growth
Software Packages:	MS Office, MS Project, Visual Basic, Magic, ORCAD and Origin

MEMBERSHIPS & AFFILIATIONS

Member: BME, OSA, SPIE and IEEE
Reviewer: Optics Express, Optics Letters, JOSA A, Applied Optics and Neoplasia

Detailed CV, including list of Publications, Presentations and Conference Proceedings available upon request.
Open to Relocation.