Samuel Smith
Phone/Email: 555-555-5555 - e.mail@gmail.com

Summary:
* Proficient in product development, characterization and developing in-vitro testing methodologies
* Designed and conducted experiments involving spectroscopy, optical imaging, geometrical optics and fiber optics
* Hands on experience in fabrication of crystals by micro-particles, thin film processing, digital VLSI/FPGA design and embedded systems design

Experience:

Dept of Surgery, Name of University, City, State
Biodesign and Innovation Fellow Jul'07 - Present

* Part of a three member team consisting of a surgeon, an engineer, and a business person. The aim of the fellowship is to develop a novel medical device from concept
* Observed, analyzed various clinical/surgical procedures and identified numerous clinical needs. Developed engineering and market analysis for twelve clinical needs and selected one clinical need: "reduction of recurrences in tension-free hernia repair"
* Led failure analysis in commercially available mesh products, quantified source of recurrence in tension-free hernia repair and established in-vitro experimental methodologies for characterizing mesh products
* Developed prototypes for proof of concept, wrote validation protocols for new product development and upgrade methodologies for next generation product development

Dept of Physics & Optical Science, Name of University, City, State
Research Assistant Jun'04 - Jun'07

* 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

Teaching Assistant Jan'03 - May'04

* Taught eight sections of undergraduate physics labs involving physics, electronics and optics and performed grading; coordinated lab equipment for physics labs

Name of Company, City, State
Intern Sep'01 - Dec'01
* Designed and developed hardware/firmware for precise control of stepper motors in position control system

Name of Company, Hyderabad, A.P, India
Design Engineer Jul'98 - Jul'00
* Designed product hardware, conducted feasibility studies and coordinated with vendors and mechanical engineers in developing prototypes and manufacturing process

Education:

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

Name of State University, City, State
M.S.E., Electrical Engineering Dec'XX

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

Skills:

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
Processing: Knowledge of Photolithography, Etching, Oxidation and Film growth
Packages: MS Office, MS Project, Visual Basic, Magic, ORCAD and Origin

Related Course work:

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

Professional Activities:

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