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## Education

**Massachusetts Institute of Technology (1998 – present) Cambridge, MA**

Candidate for Ph.D in Electrical Engineering and Computer Science (Expected graduation 2007).  
M.Eng. in Electrical Engineering and Computer Science 2003. **GPA 4.9/5.0.**  
S.B. in Electrical Engineering and Computer Science 2002. **GPA 4.8/5.0.**

## Relevant Coursework

### Communications, Control & Signal Processing

Principles of digital communication, Discrete-time signal processing, Stochastic processes, detection and estimation, Numerical simulation, Feedback systems.

### Electromagnetics and Optics

Optics, Electromagnetic wave theory, Electrodynamics, Electrostatics.

### Biomedical

Quantitative physiology: cells and tissues, Quantitative physiology: organ transport systems.

### Computer Science

Algorithms, Machine learning, Computer System Engineering.

### Business and Economics

Microeconomics, Macroeconomics, Health Economics, Finance Theory I, Entrepreneurship Laboratory, Economic Analysis for Business Decisions.

## Awards and Honors

Lester Wolfe Fellowship (Selected as only recipient from 10 graduate students in the laboratory)  
Guillemín Award for outstanding Master's Thesis (Selected as one out of 5 recipients from 200+ students)  
Tau Beta Pi Engineering Honor Society Member  
Eta Kappa Nu EECS Honor Society Member

## Research Experience

**Research Assistant, MIT Spectroscopy Laboratory (2002 – present) Cambridge, MA**

- Advance present scientific understanding and technology relating to clinical diagnosis of atherosclerosis using non-invasive optical methods (fluorescence, reflectance, Raman spectroscopy).
- Characterize light/tissue interaction by simulation and experiment, and develop spectroscopic algorithms to track the progression of disease.
- M.Eng Thesis: Implemented a light scattering spectroscopy-based optical instrument with the goal of detecting the onset of cervical cancer.
- Supervisor: Prof. Michael S. Feld.

**Summer Research, Lomonosov Moscow State University (Summer 2004) Moscow, Russia**

Participated in a research internship at the Faculty of Basic Medicine concerning modern diagnosis and treatment of cardiovascular disease: gave presentations, attended lectures, and interacted with researchers.

## Publications

- Sćepanovic OR, Fitzmaurice M, Gardecki JA, Angheloiu GO, Awasthi S, Motz JT, Kramer JR, Dasari RR and Feld MS, "Detection of morphological markers of vulnerable atherosclerotic plaque using multimodal spectroscopy," *Journal of Biomedical Optics*, **11**(2): 021007 (2006)
- Angheloiu GO, Arendt JT, Müller MG, Haka AS, Georgakoudi I, Motz JT, Sćepanovic OR, Kuban BD, Myles J, Miller F, Podrez EA, Fitzmaurice M, Kramer JR, Feld MS, "Identification of superficial foam cells in coronary atherosclerosis using intrinsic fluorescence and diffuse reflectance spectroscopy," *Atherosclerosis, Thrombosis and Vascular Biology* (in press 2006)
- Motz JT, Gandhi SJ, Sćepanovic OR, Haka AS, Kramer JR, Dasari RR and Feld MS, "Real-time Raman system for *in vivo* disease diagnosis", *Journal of Biomedical Optics*, **10**(3): 031113 (2005)

## Contributed Talks and Posters

- Scepanovic OR, Fitzmaurice M, Volynskaya ZI, Gardecki JA, Badizadegan K, Dasari RR, and Feld MS, “Multi-modal Spectral Diagnosis,” NIH site visit talk, Cambridge, MA, October 2005.
- Angheloiu GO, Scepanovic OR, Georgakoudi I, Haka AS, Arendt JT, Mueller MG, Motz JT, Dasari RR, Fitzmaurice M, Kramer JR, Feld MS, “Detection of Superficial Foam Cells Using Intrinsic Fluorescence,” American Heart Association Meeting, Pittsburgh, PA, Feb 17, 2006.
- Scepanovic OR, Fitzmaurice M, Gardecki JA, Angheloiu GO, Awasthi S, Dasari RR, and Feld MS, “Multi-modal Spectroscopy for the Detection of Vulnerable Atherosclerotic Plaque,” ECI conference (Advances in Optics for Biotechnology, Medicine and Surgery) poster presentation, Copper Mountain, CO, July 2005.
- “Multi-modal spectroscopy: combined trimodal and Raman spectroscopy,” LBRC Scientific Advisory Meeting talk, Cambridge, MA, March 2005.
- “Detecting morphological markers of vulnerable plaque with multi-modal spectroscopy,” Spectroscopy Laboratory Annual Meeting Poster Session, Cambridge, MA, January 2005.

## Work Experience

**Design Mentor, Inc. (Summer 2001)** **Pelham, NH**

Contributed to various aspects of design, implementation, testing, and documentation of modular components of a prototype medical device for blood sterilization. Worked as part of a team of interns.

**eDreams, Inc. (Summer 2000)** **Barcelona, Spain**

Produced a wireless (WAP) application to extend the startup company’s travel-related internet services to its mobile customers. Communicated in Spanish.

**Morgan Stanley & Co. (Summer 1999)** **New York, NY**

- Implemented file retrieval capabilities with Java servlets and managed large-scale secure databases.
- Gained relevant exposure to the IT infrastructure of a large company and the financial markets.

## Business and Leadership Experience

**Sidney-Pacific Graduate Community (2005 – 2006)** **Cambridge, MA**

Vice President of Resources: As a member of the house Executive Committee, led and directed a group of 10 house government officers (financial, facilities, inventory, A/V, IT, etc.) and managed an annual budget of ~\$70,000.

**Technology and Entrepreneurship Forum –TEF– (Fall 2004 – Spring 2005)** **Cambridge, MA**

Panel Chair: Led a team of 5-6 people in organizing several events of the TEF conference including the panels in life sciences, energy, software, and start-up company showcases.

**Teaching Assistant, MIT EECS (Spring Semester 2002)** **Cambridge, MA**

Course 6.022j: Quantitative Physiology. Responsibilities included directly instructing 25 students, preparing recitations, assisting in laboratory experiments, writing problem sets, and reviewing exams.

**Volunteer, Amigos de las Americas (1997 – 1998)** **Intibuca, Honduras**

Team Leader: In charge of a successful 7-week pioneer project involving a remote village of 200 people: building stoves, latrines, and granaries, teaching schoolchildren, etc. Communicated in Spanish.

Assistant Training Director: Helped train new volunteers for the upcoming year’s projects.

**Skills**     Languages:     Fluent in English, Serbo-Croatian and Spanish. Conversational in Russian.  
Computer:        C/C++/Java, MATLAB, ZEMAX, VHDL, SQL, Windows XP/NT/2000.

**Sport**     Member of the MIT Varsity Heavyweight Crew Team (1998 – 2001).