

Aladin Milutinovic | Resume

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CONTACT

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Philadelphia, PA

SUMMARY

My expertise is in imaging for biomedical applications. My core skills are programming, image processing, signals and systems analysis.

EDUCATION

2006-2007

M.Eng. in Biomedical Engineering

Tufts University, Medford, MA

GPA: 3.6/4.0

Coursework:

Medical Imaging
Photonics
Medical Optics and Lasers **details**
Bioengineering
Biomaterials
Statistics in Biotechnology
Medical Devices **details**
Medical GUI Design
Immunology

2002-2006

B.Sci. in Biomedical Engineering

Boston University, Boston, MA

GPA: 3.3/4.0, Cum Laude

Dean's List 4 Semesters

Relevant Coursework:

Entrepreneurship in BME
Engineering Physiology Lab
Solid Biomechanics
Control Systems
Signals and Systems
Pathophysiology of Major Diseases
Molecular Bioengineering
Human Physiology
Electronics

WORK EXPERIENCE

Research Systems Engineer (Jul 2008 - Present)

Advanced Pathology Imaging Laboratory, Drexel University College of Medicine, Philadelphia, PA

Perform research on the design, development, and validation of pathology image processing and analysis systems using Matlab and Visual Studio. Manage state of the art microscope imaging systems (Aperio ScanScope XT digital slide scanner; Spectrum pathology PACS; Olympus BX61 Deconvolution Fluorescence Microscope with a Hamamatsu ORCA-ER CCD run by Slidebook; Olympus BX60 Widefield Fluorescence Microscope) and provide information and technology services to the faculty and residents of the department.

Bioimaging Facility Manager (Dec 2007- Jun 2008)

Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA

Operate, troubleshoot, maintain, and train users for several microscopy systems (Confocal Zeiss LSM 510 Meta; Zeiss Axiovert200M with live cell incubation chamber and CoolSNAP EMCCD run by Metamorph; Eppendorf microinjector on Nikon TE-2000). I also provided research support by programming macros for data analysis in Metamorph and ImageJ.

Research Assistant (Oct 2004 - May 2006)

Respiratory Physiology and Systems Id. Lab, Boston University College of Engineering, Boston, MA

Programmed an algorithm that generates a 3D lung airway model using MATLAB. Designed software to personalize the 3D lung model using patient MRI images. Conducted simulations of lung mechanics.

Research Assistant (Nov 2005 - Aug 2006)

Olfactory Systems Lab, Boston University College of Engineering, Boston, MA

Signal processing, data analysis, and UI design in MATLAB. Design, modeling, and machining teflon vials for a Flow Dilution Olfactometer.

Intern (Jun 2000 - Sep 2005)

Neoscape, Inc., Boston, MA

Programmed repeatable routines and project specific macros in 3D Studio Max to accelerate production.

SOFTWARE TOOLKIT

Languages:

Matlab, C++, LabVIEW, Maxscript, ImageJ, HTML, CSS, PHP, MySQL, JBoss, Apache

Environments:

Windows, Mac, Linux

Other Applications:

Minitab, SigmaPlot, Tecplot, MetaMorph, AutoCAD, 3D Studio MAX, Adobe Photoshop, Microsoft Office, Adobe Photoshop CS3, Adobe Fireworks CS3, Adobe Dreamweaver CS3, Adobe Acrobat Professional

PROJECTS

Master's Project (2007)

Title: *Articular Cartilage Repair: A Review of Surgical, Tissue Engineered, and Drug Based Therapies*

Conducted an extensive review of articular cartilage repair in osteoarthritis with emphasis on imaging techniques for diagnosis and follow-up care. **details**

Undergraduate Senior Design Project (2005-2006)

Title: *Application of personalized Airway Trees in Multiscale Lung Models to Probe Structure-Function Relations in asthmatics*

Designed and implemented software for generating multiscale 3D lung models from Hyperpolarized Helium MRI scans; the models are used to simulate oscillatory mechanics. **details**

PUBLICATIONS & HONORS

2006 MICCAI Conference, Copenhagen, Denmark.

Personalized Airway Trees from a Generative Model, Lung Atlas, and Hyperpolarized Helium MRI. **details**

2005 Summer Term Alumni Research Scholar (STARS)

Dean's List for 4 Semesters

Graduated *Cum Laude*

OTHER KNOWLEDGE

Familiarity with FDA, USPTO, ISO
Proposal and Grant Writing
Laboratory Management
UI Development and Design
Human Factors Engineering
Graphic Design
Fluent in Serbo-Croatian