

Georgi N. Chunev

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OBJECTIVE

I am seeking a full-time job that would allow me to apply and expand my knowledge of interactive computer graphics and image processing

EDUCATION

Indiana University - Bloomington, Bloomington, IN

PhD in Computer Science, expected in May 2013

Master's in Computer Science, received in September 2010

- Minor in Artificial Intelligence
- GPA: 3.7/4.0
- Areas of interest: Plenoptic Rendering and Interactive Computer Graphics

Manchester College, North Manchester, IN

Bachelor of Arts in Computer Science and Mathematics, received in May 2008

- Minor in Physics
- GPA: 3.9/4.0
- Graduated Magna cum Laude

INDEPENDENT STUDIES AND RESEARCH ASSISTANTSHIPS

- Research assistantship at the IU Open Systems Lab on the topic of plenoptic rendering and depth extraction from plenoptic data; my work has contributed to a paper that was published in IEEE Computer Graphics and Applications, Fall 2010
- Research assistantship in high-dimensional geometric data visualization, Fall 2009
- Graduate assistantship and independent study at the IU Open Systems Lab on the topic of GPU solutions for synthesizing full-resolution plenoptic camera images; my work was affiliated with Adobe Research, and is being published as a poster at SPIE Computational Imaging 2011, Summer 2009
- Independent study in GPU based volume rendering and multi-wavelength astronomical data visualization, *using the OpenGL Shading Language*, Spring 2009

WORK EXPERIENCE

Adobe Systems Inc., *Computational Photography Intern*, May 2010 - August 2010

- Helped enable plenoptic rendering capabilities in a test version of Adobe Camera Raw
- Assisted a senior researcher with work that resulted in the filing of four patents related to plenoptic rendering, super-resolution, demosaicing, and calibration interfaces
- Developed research software that was presented by Adobe during the keynote speech of NVIDIA's CEO at the NVIDIA GPU Technology Conference 2010

Indiana University Computer Science Department, *Associate Instructor*, August 2008- Present

- Grade the assignments for a graduate-level course on computer graphics; work with students outside of class; and substitute for the main instructor when necessary, Fall 2009
- Assisted with assigning and grading homework for a junior-level class on computer structures; and taught labs related to embedded systems programming (ARM7TDMI), Fall 2008, Spring 2009

Manchester College Physics Department, *Assistant*, September 2006 - May 2008

- Wrote IDL programs for astronomical data analysis
- Coauthored a paper on the structure of IR bubbles

Manchester College Department of Math and Computer Science, Assistant, 2006 - May 2008

- Taught study tables, and weekly graded homework for lower level programming classes

Manchester College IT Services, Support Assistant, September 2005 - May 2008

- Set-up software and hardware for the use of the college community
- Troubleshoot software problems regarding the use of Manchester College's network system

"GENY-G", Volunteer Web Designer, Summer 2005

- Designed a multi-page information website for a small Bulgarian company that deals with imported Russian health improvement products

SKILLS

Computer: C/C++, Python (wx, PyOpenGL), IDL, Scheme, Pascal, Visual Basic, Matlab
STL, MFC, Qt
GLUT/OpenGL, GLSL, some OpenCL
basic Oracle PL/SQL,
JavaScript, CSS, HTML,
MIPS Assembly, ARM Assembly, VHDL
Dreamweaver, Fireworks, Photoshop, Illustrator, IRAF
Linux/Unix (basic system and network programming), Microsoft Windows,
SVN, Perforce;

Language: Fluent in Bulgarian and English,
Intermediate German,

PUBLICATIONS

- Georgiev, T.; Lumsdaine A.; and Chunev, G., "Using Focused Plenoptic Cameras for Rich Image Capture", *IEEE Computer Graphics and Applications*, Vo. 31, Num. 1, p.62-73 (2011)
- Watson, C.; Povich M.S.; Churchwell, E.B.; Babler, B.L.; Chunev, G.N.; Hoare, M.; Indebetouw, R.; Meade, M.R.; Robitaille, T.P.; Whitney, B.A., "Infrared Dust Bubbles: Probing the Detailed Structure and Young Massive Stellar Populations of Galactic HII Regions", *ApJ*, 681, p.1341-1355 (2008)

CONFERENCE PRESENTATIONS

- Bird, Sarah; Chunev, G.; Koblunicky, H.; Uzpen, B., "Optical Spectroscopy of GLIMPSE Stars with 8 Micron Infrared Excesses". *2008 AAS/AAPT Joint Meeting, American Astronomical Society Meeting 211; Abstract published in the Bulletin of the American Astronomical Society, Vol. 39, p.813*
- Chunev, G.N.; Watson, C.; GLIMPSE Team, "High-Mass Star Formation in Three Southern, Galactic Cores", *2007 AAS/AAPT Joint Meeting, American Astronomical Society Meeting 209; Abstract published in the Bulletin of the American Astronomical Society, Vol. 38, p.922*
- Lumsdaine A.; Georgiev, T.; and Chunev, G., "Plenoptic Rendering with Interactive Performance Using GPUs", 2011 SPIE Computational Imaging IX

AWARDS

2010 Adobe Intern Project Expo,

Best Presented Project

- Did a live demo of stereo rendering from plenoptic images using research software I wrote for the company.

2008 Manchester College Student Research Symposium,

Jo Young Switzer Award for Excellence in Writing

- Wrote a paper on "Optical Spectroscopy of GLIMPSE Stars with 8 Micron Infrared Excess", which was judged as the best example of quantitative writing by a Manchester College student.