

# BIYEUN M. BUCZYK

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## Education

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- **Massachusetts Institute of Technology**

*Bachelor of Science in Physics*

*June 2010 (expected)*

- Special concentration in waves and imaging
- Relevant Coursework: 6.815 Advanced Computational Photography; 2.71 Optics; 2.065 Acoustics and Sensing; 18.06 Linear Algebra; 8.044 Statistical Physics; 8.03 Waves and Vibrations
- Affiliations: Student Information Processing Board; The Tech; Technique

## Experience

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- **MIT Media Laboratory - Camera Culture**

*Undergraduate Researcher in Computational Photography*

*June 2009 - May 2010*

- Facilitated development of day/night display that trades slow refreshrates for high resolution & ultra low power
- Developed an experimental setup using a femtosecond laser and picosecond camera that images around a corner
- Engineered an imaging setup for looking around corners using ultrasound transducers
- Analyzed experimental data and created figures for publication
- Participated in assembling research papers for CVPR and SIGGRAPH

- **MIT Student Art Association**

*Lead Web Developer & Designer*

*January 2009 - Present*

- Created new website and public image for group: <http://saa.mit.edu/>
- Improved back-end usability by installing the Plone content management system

*Photography Instructor*

*September 2008 - Present*

- Lectured 5 classes of 6 to 8 MIT students and affiliates in darkroom and photography techniques, including *Basic Photography* and *Large and Medium Format Photography* over the span of one year
- Explained principles behind image formation and camera construction
- Guided students in use of 35 mm to large format 8"x10" cameras and digital SLRs

- **Akamai Technologies, Development Tools Group**

*Software Engineer Intern*

*June 2008 - August 2008*

- Streamlined the user interface of a suite of web applications used by software developers and project managers for tracking software release milestones and displaying project timelines
- Ported existing web applications from PHP to Ruby on Rails

## Projects

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- **Construction of Large Format Camera**

*January 2008 - July 2008*

- Designed and built, from scratch, an 8"x10" field camera at the MIT Hobby Shop—everything except the lens (which will be tackled in the future). Website: <http://camera.biyeun.com/>

## Technical Skills

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**Languages:** MATLAB, C/C++, L<sup>A</sup>T<sub>E</sub>X, Mathematica, XHTML, JavaScript, CSS, PHP, MySQL, Python, Ruby on Rails

**Computer and OS:** Mac OS X, Debian & Ubuntu Linux, Windows; VMWare; Hardware Troubleshooting

**Software:** Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Perforce, Git

**Other:** Circuit Design, Machining Experience (Lathe, Mill, Water Jet, Laser Cutter)

## Fellowships and Awards

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- **MIT Council for the Arts Grant**

*Construction of Second Large Format Camera*

*Spring 2009*

- Obtained full funding to construct improved design of first view camera: lighter, more stable, and more compact

- **MIT Public Service Center Summer Fellowship**

*InterConnection Uganda*

*June 2007 to August 2007 (Kampala, Uganda)*

- Facilitated with launch of computer refurbishment business in Kampala, Uganda
- Collaborated with Hon. John Nsambu, Uganda's Minister of State for Information and Communications Technologies (ICT)
- Oversaw and trained a team of four Ugandan technicians in computer refurbishment

## Volunteer Work

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- **Computers for Uganda Project**

*Technical Leader*

*Summer 2005, 2006*

- Led teams of U.S. high school students through computer lab installations in Ugandan schools
- Created instructional material to aid with future lab setup

*Chaperone and Technical Advisor*

*Summer 2009*

- Guided new technical leaders with managing lab installations