

# Samuel J Bobb

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## Education

**Northwestern University**, Evanston, Illinois

**Robert McCormick School of Engineering and Applied Science**

Bachelor of Science in Electrical Engineering, Anticipated June 2010

**GPA:** Cumulative 3.150/4.000

**Courses include:** Digital Signal Processing, Microprocessor System Design, Digital Microelectronics, Introduction to Digital Control, Advanced Digital Design, Feedback Systems, Fundamentals of Computer Programming, Fundamentals of Circuits and Electronics.

## Experience

**Laboratory for Intelligent Mechanical Systems** – Northwestern University, Evanston, Illinois

*Research Assistant*, Swarm Robotics Project, Summer 2009

- Designed hardware and software to implement a color-sensing system; deployed the system on eight mobile robots.
- Conducted tests, analyzed data, and drew conclusions to create an automatic robot calibration routine.
- Established goals and gave progress reports at weekly meetings with a team of seven students and professors.

**Transportation Research Center, Inc.** – East Liberty, Ohio

*Test Technician*, Emissions Lab, Summer 2008

- Interpreted written customer descriptions and SAE specifications to develop five fuel system test rigs for ethanol based fuels.
- Directed four mechanics and drivers in emissions testing on 24 vehicles; reviewed data after tests.
- Communicated with suppliers and manufacturers to acquire parts, materials, and measurement equipment.

*Test Technician*, Impact Lab, Summer 2006 and Summer 2007

- Prepared, setup, and ran crash tests for major auto manufacturers; collaborated with customers.
- Positioned and wired accelerometers, load cells, and roll sensors on vehicles.
- Tested, seated, and configured crash test dummies.

**Pick-Staiger Concert Hall** – Northwestern University, Evanston, Illinois

*Information Technology Administrator*, September 2008–Present

- Work independently to manage technology systems for an office of 30 staff and a ticketing system for five venues.
- Assessed the need for concert hall staff to post videos online, created a video management system using Perl programming and open-source video encoding packages, conducted tests with users, synthesized feedback, and made revisions.
- Interview, hire, and train IT personnel; assess technology needs and delegate responsibilities among three IT assistants.

**Moonlit Studios: Video Production Company** – Delaware, Ohio

*Co-owner*, 2002–2008

- Launched and managed a three-person video production company; administered financial, legal, and logistical operations.
- Directed, filmed, edited, and marketed two full length history documentaries, two wedding videos, and several short films.

## Activities

**Design Competition**, Northwestern University, 2007 and 2008

- Designed, built, and tested an autonomous robot to compete against other robots.
- Organized a team of two to complete the robot over five months.

**Northwestern University Dance Marathon, Productions Committee Co-chair**, 2008–2009

- Led and motivated a committee of 45 students to produce a 30-hour philanthropic event for 1000 student dancers.
- Analyzed problems from previous year and implemented a new, larger venue to accommodate increased dancer registration.
- Negotiated contracts with vendors; managed a \$45,000 budget to maintain an overhead of less than 2% of total fundraising.

## Honors and Awards

Design Competition: **First Place**, 2008; **Second Place**, 2007 • Ford Dean's Scholar • Dean's Honor List, Winter 2008

## Skills

- Highly effective on Mac, Windows, and Linux; MATLAB; Microsoft Office; Microsoft Visual Studio.
- Experienced in computer programming, computer networking, software troubleshooting, web design, photography, photo editing, video editing, and graphics design.
- Proficient in programming: C, C++, MATLAB, HTML, CSS, PHP, Perl.
- Prototyping skills include soldering, circuit assembly, basic metal and wood work, and microprocessor programming.
- Knowledgeable in theatre and corporate venue lighting, sound, and staging design.