

# Filip Mazurek

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## EDUCATION

**Duke University**, Durham, NC  
Bachelor of Science in Computer Science  
GPA: 3.74/4.00

Expected May 2018

## TECHNICAL SKILLS

### Programming Languages

Java, Python, C, Scheme (Lisp), C++, HTML, CSS, Assembly

### Software

MATLAB, PostgreSQL, Autodesk Inventor, SWIG, Blender, SketchUp, LaTeX, Logisim

### Hardware

Arduino, Photon, Raspberry Pi, breadboard prototyping, MakerBot & Lulzbot 3D Printer use

### Methodologies

Agile software development, Test-driven development, good git practices

## WORK EXPERIENCE

**Laboratory Imaging Technician**, *Nightingale Lab, Duke University*, Durham, NC.

January 2016 (current)

Principal Investigator Kathryn R. Nightingale, Associate Professor

- Goal: to achieve faster image processing of 3-D imaged prostate scans
- Roles: Collaborate using Linux systems and The Visualization Toolkit to expedite image processing (ongoing); use 3D printing to produce reliable transducer holders.

**Student Engineering Technician**, *CDC NIOSH*, Morgantown, WV

May–August 2015

Supervisor Jeffrey S. Reynolds, Senior Electrical Engineer

- Goal: to discover whether it is feasible to predict silicosis in rats using passive breathing data.
- Roles: Classified rat passive breathing data using MATLAB machine learning to discover trends; designed a graphical user interface in MATLAB to better assist researchers in screening cough data.

## PROJECTS

**Android Application:** Through my CS408 class, I am part of a team that is developing an Android application for a client, the local startup Vëndr. Deployment anticipated December 2016.

**Web Development:** Part of a training program through the Duke MakerSpace, I am creating a website that will allow users to upload and modify their images. Deployment anticipated November 2016.

## LEADERSHIP & COMMUNITY INVOLVEMENT

**Makers Club Executive Board**, *Duke University*, Durham, NC

September 2016 (current)

- Instruct fellow students in 3D modeling, 3D printing, and using hardware such as Arduino and Photon.

**Teaching Assistant**, *Duke University*, Durham, NC

August 2015–December 2015

- Spent 9 hours each week in assisting student learning and lab grading for Engineering 103L.

**Duke Hackathon Participant**, *Duke University*, Durham, NC

November 2014

- Worked with a partner to develop a program to analyze Twitter syntax using IBM's computing system.

**Project Change Participant**, *Duke University*, Durham, NC

August 2014

- Evoked change in the Durham area through the Kenan Institute for Ethics by improving the livelihoods of former drug addicts at the TROSA rehabilitation facility.

## RELEVANT COURSEWORK

CS201: Data Structures & Algorithms	CS230: Discrete Math in Computer Science
CS250: Computer Architecture	CS316: Introduction to Database Systems
CS308: Software Design/Implementation	CS408: Delivering Software
BME590: Medical Device Software Design	ECE280: Intro Signals & Systems (Signal Processing)