# Sam McGrail

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## TECHNICAL SKILLS
**Languages**: Ruby, JavaScript, C/C++, Python, Java
**Databases**: SQL, PostgreSQL
**Software/Tools**: Linux/Unix, git, GitHub, Heroku, D3, C3, Bootstrap, Foundation, Photoshop, Rails
**Hardware**: IT maintenance, Custom PC construction, Bitcoin Mining, A/V configuration

## PROJECTS
**MyDGA:** mydga.herokuapp.com
- Quick dissolved gas analysis (DGA) for transformer substation engineers in the field.
- Checks transformer maintenance equipment data outputs with IEEE warning levels to improve worker safety and risk management.
- Integrates a Rails scaffold with Javascript graphing libraries for better analysis of dangerous compounds. Allows engineers to share data to refine maintenance techniques.
    o Uses D3.js and C3.js data visualization libraries to present DGA data more clearly.

**Homepage**: sammcgrail.com
- Personal contact info, resume and portfolio. Includes functional CSS/HTML piano.
    o Uses Howler.js library to play piano note sounds on keyboard or mouse press

## PROFESSIONAL EXPERIENCE
**Launch Academy**                                                                                   Boston, MA
*Junior Full Stack Web Developer*                                              *May 2015 - July 2015*
- Worked in an immersive environment supplying over 400 hours of experience towards becoming a proficient full-stack developer.
- Actively collaborated with over 40 developers on a daily basis through paired programming
- Developed software applications with TDD (Test Driven Development) in mind using Ruby, Rails, PostgreSQL, JavaScript, jQuery & CSS.
- Incorporated strict best practices, including Agile methodologies.

**Professional Musician**                                                                Natick, Boston, MA
*Pianist*                                                                              *June 2013 - July 2015*
- Played lounge music weeknights for 3-4 hours at various restaurants.
- Provided a sophisticated atmosphere for diners with solo jazz piano.
- Able to sight-read popular songs, take requests, and play for the audience in mind.
- Increased restaurant Yelp ratings with positive reviews, and helped bring in a crowd of regulars.
- Played with a jazz combo trio at local political fundraisers and events.

**Doble Engineering**                                                                              Boston, MA
*Laboratory Technician*                                                            *May 2013 - May 2014*
- Ran dissolved gas analysis (ASTM D 3612) on transformer mineral oil samples.
- Detected thermal and electrical problems through analysis of chromatogram data to prevent dangerous equipment failure.
- Increased sample testing efficiency with visual basic macros for Excel spreadsheets.
- Improved time limited testing rate 20% by running an extra 40 samples on Saturdays.

## EDUCATION
**University of Massachusetts Amherst**                                                  Amherst, MA
B.S. Neuroscience                                                          *September 2009 - May 2013*