Mark Freeman

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EDUCATION

Tufts University - School of Engineering, Medford MA

Majors: Mechanical Engineering; Computer Science

Degree Anticipated May 2019

Relevant Coursework

Machine Code & Assembly, Data Structures, Web Programming

Mechanical Design, Applied Mechanics, Mathematical Modeling, Differential Equations

PROJECTS

Color image compressor and decompressor

- Programmed in C; Used logarithmic quantizing for bit manipulation.

Arduino hexapod

- Modelled, laser cut, wired, and programmed a working hexapod using an arduino.

Gaussian elimination matrix solver

- Programmed in C; Used to solve system of equations (e.g. differential equations).

Electric guitar

- Used woodworking and electrical engineering skills to design an electric guitar

EXPERIENCE

Tufts Women's Center, Graphic Design Intern *(2016 - Present), Tufts University, Medford MA*

- Design posters, logos, and other graphics for the Tufts Women's Center and its events.

Freelance Web Designer *(2016 - Present)*

- Design webpages with intuitive, responsive, and elegant design for media/portfolio use.

Freelance Composer & Arranger *(2015 - Present)*

- Score a podcast, commissioned for personally catered compositions

Boeing Company, Mechanical Analyst Intern *(2014), El Segundo, California*

- Selected and trained by Boeing; Ran vibration analyses for satellite components.

Bikerowave, Bike Mechanic *(2012 - 2016), Los Angeles CA*

- Repaired bikes, mentored incoming volunteers, worked register

SKILLS

Programming & Scripting

- C, C++ (data structures, robotics)
- Python (physics modelling)
- HTML/CSS/JavaScript
- NoSQL databases

Software

- Patran (stress testing)
- Git
- Matlab (heuristics, modelling)
- Autodesk/Solidworks
- LaTeX
- Photoshop, Illustrator, InDesign

Hardware & Machining

- Machining (dremel, bandsaw, CNC, etc.)
- Soldering
- 3D Printing/Laser Cutting
- Arduino

Leadership

- Spoken Word Alliance (board member)
- Queer Students Association (head)
- Trans Discussion Group (facilitator)