John Echols

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Education

University of California, Berkeley   **Expected Graduation: May 2018**
B.S. Bioengineering,   *3.1 GPA*
Minor in Electrical Engineering and Computer Sciences

Relevant Course Work: Bio-mechanics, Instrumentation in Biology and Medicine, Information Devices and Systems, Discrete Math, Data Structures, Computer Architecture, Medical Imaging Signals and Systems, Artificial Intelligence

Research Experience

Vandsburger Lab   **June 2017 - Present**
University of California, Berkeley   *Berkeley, CA*

Undergraduate Research Assistant   *June 2017-Present*
  - Performed analysis of cardiac MRI images in MATLAB
  - Collaborated with the University of Florida on a gene therapy for Friedreich's Ataxia

Leadership and Extracurricular Activities

University of California Marching Band   **August 2014 - Present**
University of California, Berkeley   *Berkeley, CA*

Student Director   *January 2017-Present*
  - Member of the 5 person Executive Committee responsible for planning band events, working with the university to create a positive public image, and managing a $500,000 annual operating budget
  - Lead of team of 6 members who together are responsible for all musical aspects of the 250 person organization
  - Plan and coordinate with clients in order to facilitate over 100 performances throughout the Bay Area
  - Lead and conduct the band during rehearsals as well as at all football and basketball games
  - Coordinate with the Athletic Department in order to create an exciting fan experience at sporting events

Computer skills (proficiency in parenthesis)

Languages/Frameworks: Python (5/5), Java (5/5), C (3/5), MATLAB (5/5)
Web: HTML5 (5/5), CSS3 (4/5), Django (3/5), jQuery (2/5)
Software: Git (3/5), LaTex (3/5), Microsoft Excel (2/5), COMSOL(2/5)

Projects

Class Projects

○ Web-based mapping application of Berkeley written in Java

○ Pac-Man AI written in Python

○ Voice controlled toy car, including front end circuit design and back end control scheme and signal processing

○ Low-noise pedometer made with noise-matching techniques that had accurate step counting within $<1\%$

Personal Projects

○ Personal website, www.johntechols.com