CHENXI GAO

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PROFILE

Highly motivated Programmer/Analyst with 1.5 years of experience in data manipulation and programming, web development in Python (& Flask), Ruby on Rails, and Oracle database. Skilled and experienced in object-oriented programming, developing and debugging code, holding a master's degree in Computer Science.

EDUCATION

Brandeis University ***Aug 2015 - May 2017***
M.S. Computer Science **Honors: Recipient of Merit-based Scholarship**
Beloit College *Aug 2009 - May 2013*
B.A. Psychology *Honors: Dean's List*

SKILLS

Programming Languages	Python, Flask, Java, Ruby on Rails, SQL, MATLAB, HTML5, LaTeX
Software & Tools	Oracle, Git, Jupyter, Visual Studio, Eclipse, Netbeans, Atom, SPSS
Operating Systems	Linux (Ubuntu), Mac OS, Windows

RELEVANT COURSES

Data Structures and Algorithms, Mobile Application Development, Advanced Programming Techniques, Discrete Mathematics, Topics in Computational Cognitive Science, 3D Animation, Programming in Java and C, Introduction to MATLAB, Programming with C++, Introduction to Artificial Intelligence

WORK EXPERIENCE

IS Programmer/Analyst - Brigham and Women's Hospital *Oct 2017 – present*

- Wrote queries to retrieve, import, and export sleep data from Oracle database, and maintained the web interface of the database using Ruby on Rails
- Developed a web application for sleep data analysis, calculating wake duration and number of sleep episodes including REM and non-REM sleep latency, duration of final wake, and wake-sleep period, with Python, Flask, HTML5, CSS, and Google Cloud Platform
- Automated bulk categorization and merging of data files from dbf, xls, csv formats using Linux bash, Python and Ruby
- Documented release notes and maintained code under Git version control

PROJECTS

SpeechNinja Pokémon – A 3D Therapeutic Game

- Built a 3D Game for speech therapy research with Blender and Python to use game logic module (BGE)
- Created a Ninja Avatar and controlled it to collect Pokémon balls and shoot at Pokémons
- Used Unix terminal commands to start game engine and receive feedback in the back-end
- Implemented functionality to record voices and analyze voice signals according to nasality

Image Based Food Recognition in MATLAB (Coursework Project)

- Developed a MATLAB application with GUI that was able to recognize and categorize fruits from photos provided by users and return the caloric values
- Created a fruit image database, using Gabor filters and log Gabor filters for segmentation, as well as Bag of features, K-means clustering, and SVM for feature extraction and classifier training
- Trained the model using MATLAB Statistics and Machine Learning & Image Processing Toolboxes