BERWIN XIE

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EDUCATION

University of Illinois at Urbana-Champaign — *Aug 2013 – May 2017*
B.S., Computer Science
Engineering James Scholar

EXPERIENCE

Epic Systems – Software Development Intern — *Summer 2015*
Opened up the borders of *Epic Earth*, a formerly proprietary web-based social network for Epic Systems healthcare software customers, to any practicing physicians. Worked on design and development for a new registration workflow, file uploads for resumes, and NPI lookup in Javascript, C#, ASP.NET MVC, and SQL Server.

Edward Madigan Laboratory Vodkin Lab – Software Engineer — *Apr 2014 - Present*
Designed Python and bash scripts to automate, analyze, and display data obtained from Bowtie, Bowtie2, and DESeqs runs on soybean DNA and RNA sequences.
Migrated the soybean database from an older version to the latest, while running sanity checks to make sure the proposed corresponding model DNA sequences between versions were similar.

Chicago Chair and Stool Incorporated [eHemco] – Programmer — *Summer 2013*
Designed a shipment program pulling information from Amazon.com seller data which reduced data entry time from over 4 hours to under 10 minutes.

PROJECTS

OculuScooter
An Oculus Rift project that simulates using a kick-scooter with a device made from PVC and a roller-skate with a photosensor and a Spark Core.

SIGMusic Engineering Open House
Tonal Starfield 2015
Using threejs, socket.io, HTML5, ChucK, and OSC, created a massively collaborative web interfaced tonal starfield simulation. Visitors use their mobile devices to draw pictures or write their signatures to be parsed into melodies, which are then played on the simulation instance.
Leap Music 2014
Worked with a Leap Motion controller to create a Human Computer Interaction demonstration using Python, PureData, Arduinos, LED lamps. The programming aspect involved physics and dynamically generated tunes from pop culture. Received **2nd place** in the *Just for Fun* category.

Markov Music
Built using Python and C++, converts single channel MIDI into raw data and parses that into a Markov matrix. With that matrix, using Python modules, algorithmic music is generated using the learning data that was parsed.

Hackathons
HackIllinois 2015
Staff: Organized external operations including food, transportation, and hospitality for all the participants.
WildHacks 2014
pyDex: Streamlined solution for looking up Python definitions in Google Chrome.
Received **Top 10** Honors.
YHack 2014
art: A Chrome extension that integrates great artworks into the daily browsing routine.
MHacks IV
MHacks Music: An interactive and collaborative public graffiti wall for music.
HackIllinois 2014
Bweets by J: A music generator using web-scraped data from Twitter queries.
Facebook Hackathon 2013
Built an OpenCV and Facebook powered face replacement program.

LANGUAGES

Technical
Python, Javascript, JQuery, ASP.net MVC, C#, Unix-based Systems, SQL, C, C++, HTML, Mathematica

Communicative
English – fluent, Chinese(Mandarin) – proficient, French – intermediate