BERWIN XIE

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EDUCATION

University of Illinois at Urbana-Champaign

B.S., Computer Science

Engineering James Scholar

Aug 2013 –
May 2017

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

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

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, C#, Unix-based Systems, SQL, C, C++, HTML, Mathematica

Communicative

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