

Justin Ying

Software Engineer

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Professional Experience

Epic Systems

Java, OpenCV, Android (4.0+)

Android Application (May – August 2015)

- Developed an Android activity that allows physicians to create text and drawing annotations on images
- Utilized OpenCV for image processing to find reference objects, enabling distance measurements
- Designed application for cross-platform compatibility with iOS devices

Web Application (May – August 2014)

C#, ASP.NET, JavaScript

- Produced a secure, cross-browser compatible ASP.NET web application for clinicians
- Accessed Caché database in C# using Epic's ORM to store and retrieve relevant data
- Collaborated with user experience designers to implement an intuitive, responsive user interface

Swanson School of Engineering

C, Java, jQuery, Bootstrap

Ray Tracer (January – May 2015)

- Created a ray tracer to simulate thermal radiation in thermoelectric devices
- Utilized GPU acceleration to improve drastically the simulation's speed and precision
- Developed a web interface for remotely managing simulations using Java's HttpServer and Bootstrap
- Second author of *Energy* journal article "Numerical Solution of Radiation View Factors within a TED" (under review)

Bentley Systems

C++, Python

Codebase Maintenance (May – August 2013)

- Modified MicroStation source to comply with C++11 standards using Python and regular expressions
- Refactored legacy code to improve maintainability

Projects

Localization and Navigation System: Wearable Device

Python, PCB Design & Fabrication

Utilizes ultrasonic rangefinders and a gyroscope to guide visually impaired users

Tab Cleaner: Chrome Extension

HTML, CSS, JavaScript

Provides new tab customization options; actively updated based on user feedback

Donation Reporter: Desktop Application

C#, SQL, WPF

Queries, formats, and emails donation records

PeopleSofter: Google App Engine Application

GAE, Django, Python

Searches the University of Pittsburgh course catalog and visualizes class schedules

Centralized Traffic Control Display: Java & Web Application

Knockout.js, Bootstrap, Java

Interacts asynchronously with other Java modules to display railway status via a web interface

Academics

B.S. in Computer Engineering: University of Pittsburgh

Graduation: April 2016

GPA: 3.73/4.00

Full Tuition Honors Scholarship: University of Pittsburgh

August 2011 – Present

Dean's Honor List: Swanson School of Engineering

January 2012 – April 2015

National Merit Scholarship

August 2011 – April 2012

Leadership

Web Admin & Historian: Society of Asian Scientists and Engineers

October 2013 – November 2014

Violinist: invited to perform at Carnegie Hall; solo appearances with five orchestras

July 2008 – Present

WISF-15 TV appearance; winner of numerous music scholarships and competitions