

# DAVID S. DESBERG

120 W. ORANGE HILL CIRCLE, ORANGE VILLAGE, OHIO, 44022

(216) 288-9942 ▪ david [at] daviddesberg [dot] com ▪ <https://daviddesberg.com>

## Education

University of Illinois at Urbana-Champaign

June 2014 – Present ▪ **B.Sc. in Computer Science**

- Edmund J. James Scholar in College of Engineering
- Dean's List (College of Engineering, Fall 2014, Spring 2016)

## Skills

- Proficient in C++, C#, C, Java, Scala, Python, and PHP.
- Proficient in (X)HTML, XML, CSS, and JavaScript.
- Proficient in SQL (experience with MySQL, PostgreSQL, MSSQL, and SQLite) and MongoDB
- Familiar with Apache Spark and Apache Flink
- Familiarity with Linux and Windows environments, and proficient with Git and SVN version control
- Experienced in technical documentation and object-oriented design, with understanding of design patterns and principles

## Experience

**Software Engineer Intern** ▪ May 2016 – August 2016

Uber ▪ San Francisco, California

Developed a unified batch and stream processing ETL pipeline using Apache Spark. Integrated with Kafka and ElasticSearch. Stress-tested to ensure scalability and correctness under heavy load.

Developed a framework for the creation of stateful geotemporal pipelines utilizing Apache Flink. Built a demand forecasting pipeline to showcase the framework, including a real-time visualization of forecast results.

**Software Engineer Intern** ▪ May 2015 – August 2015

ContextLogic, Inc. (Wish) ▪ San Francisco, California

Developed algorithmically targeted marketing campaigns using Python, Hive and MongoDB. Developed an internationalization pipeline to target non-English speakers. Analyzed performance of campaigns with Hive. Developed internal admin tooling to help combat fraud, and analyzed patterns in known fraudulent transactions to improve existing tooling.

**CS 125 Course Assistant** ▪ January 2015 – May 2015

University of Illinois Department of Computer Science ▪ Urbana-Champaign, Illinois

Assisted in teaching one section of a rigorous introductory computer science course per week, helping students learn object-oriented development techniques and basic algorithm analysis with a focus on recursion.

Assisted students with programming assignments as needed.

**Software Developer** ▪ April 2012 – June 2014

ORG Portfolio Management LLC. ▪ Beachwood, Ohio

Developed and maintained an in-house financial data collection and storage system, with a public-facing interface, based on Microsoft SQL Server, PHP, and JavaScript while adhering to the stringent security standards of the SEC.

Developed and maintained an in-house financial data calculation system written in PHP and C.

Worked with an existing team of IT consultants to manage and update a public website.

### **Web Development Consultant** ▪ May 2012 – September 2012

Pace Productions LLC. ▪ Cleveland, Ohio

Worked on a team of two people in designing and developing an online learning management system to facilitate the delivery of a childrens' literacy program to users utilizing MySQL and PHP.

### **Web Developer** ▪ April 2011 – December 2014

Friends of Photography of the Cleveland Museum of Art ▪ Cleveland, Ohio

Converted a web design based largely on Adobe Illustrator into standards-compliant HTML5 with CSS.

Created a functional website using JavaScript and PHP, along with WordPress integration for a blog component, and the Google Calendar API for a calendar feature.

Expanded, maintained, and updated the website with new features as needed.

### **Software Developer** ▪ June 2010 – September 2010

GVI Medical Devices. ▪ Twinsburg, Ohio

Designed, programmed, and documented a secure system for remote display, via the web, of diagnostic medical images acquired and stored on a commercially available, FDA approved, cardiac imaging system.

Implemented image database query and retrieval functionality using PHP, HTML 5, JavaScript with jQuery, and Java.

Implemented image manipulation functionality in Java, with Java-JavaScript interaction and the ImageJ library.

Implemented legacy functionality for users of this system with browsers dating back to Internet Explorer 6.

## **Extracurricular Involvement**

### **Undersecretariat General of Technology** ▪ July 2016 – March 2017

Illinois Model United Nations ▪ Urbana-Champaign, Illinois

Redesigned website for the University of Illinois' high school Model United Nations conference, MUNI.

Developed conference administration/registration web application using Python/Django.

### **Deputy Undersecretariat General of Technology** ▪ September 2014 – March 2015

Illinois Model United Nations ▪ Urbana-Champaign, Illinois

Maintained website for the University of Illinois' high school Model United Nations conference, MUNI.

Developed various small web applications to facilitate conference operations.

Oversaw technology operations, including printing and communications, during the three-day conference.

### **Web Developer** ▪ August 2009 – June 2010

OHS Imagine ▪ Pepper Pike, Ohio

Led a team of three people in designing and developing a website for a high school arts magazine.

Utilized Wordpress Integration with PHP, along with XHTML 1.1, CSS 2.1, and JavaScript

**Web Developer** ▪ October 2007 – April 2008  
Tangrammatic Tangrams ▪ Pepper Pike, Ohio

As a project in lieu of the required middle school typing class, created an interactive website for first and second grade students to upload and solve tangram puzzles.

Utilized Flash 8, XHTML, CSS, and JavaScript.