

# Mohsin H. Ismail

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## OBJECTIVE

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Highly motivated Software Engineering graduate student seeking an internship or entry-level role designing and testing software solutions in a dynamic, fast-paced environment.

## QUALIFICATIONS

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- Experienced with optimized C/C++ with focus on implementing dynamic memory usage, data caching and alignment, SIMD instruction sets and algorithmic considerations to improve software system performance
- Strong knowledge of OOP and data structures in Java with emphasis on linked lists, BSTs, red-black trees, R-tries, hash tables, and graphs, as well as searching algorithms
- Proficient in web development and design with experience using HTML, CSS, and JavaScript, and jQuery to develop responsive websites that meet modern standards
- Good knowledge of SQL and PL/SQL with experience in efficient database schema design and management, as well as the formulation of complex queries to retrieve subsets of data
- Other languages and technologies: Python, R, Swift, PostgreSQL, MATLAB, Simulink, Git, Perforce, Eclipse, Visual Studio

## PROJECTS

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- **Memory System** (Sept 2017) – In-class assignment consisting of creating a memory system framework within a heap layout, using doubly linked list data structures to implement efficient allocation & deallocation of blocks of memory, while maintaining statistical information about the system using header metadata. Written in C++ using Visual Studio.
- **Personal Website** (Jul – Aug 2017) – A modern, mobile-first portfolio website designed from scratch to showcase my experience and provide a central location for visitors to find my contact information. Written in HTML, Sass, and JavaScript using Brackets text editor. [www.mhismail.com](http://www.mhismail.com)

## EXPERIENCE

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### DePaul University Student Services, Chicago, IL – *Student Employee*

Mar 2017 – Present

- Systematically gathered and organized all exam materials for the College of Law and arranged for them to be delivered according to administered date, ensuring that all exams were available to professors in a timely manner.
- Performed administrative tasks and duties for various colleges and departments across campus when required.
- Provided necessary office assistance such as mass mailings, filings, photocopying, running errands, and other general office work.

### Bretl Research Group, Champaign, IL – *Senior Design*

Aug 2015 – May 2016

- Improved the functionality and sensory feedback of a prosthetic arm through iterative software design and experimentation in MATLAB & Simulink.
- Programmed a LabVIEW controller to acquire pressure sensor readings and convey corresponding information to the user through electrotactile stimulation via electrodes.
- Designed casting molds in AutoCAD for fingertips made from a rubber polymer, which were embedded with barometric pressure sensors that could quantitatively measure force during interactions.
- Won “Best Senior Design Presentation – Judges’ Choice” and “Best Senior Design Vendor Display” awards.

## EDUCATION

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### M.S. Software Engineering – DePaul University, Chicago, IL – **GPA: 4.0**

2017 – Present

### B.S. Bioengineering – University of Illinois at Urbana-Champaign, IL – **GPA: 3.3**

2012 – 2016

- Graduate Coursework: Discrete Structures, Applied 3D Geometry, Programming with Python, Data Structures I & II, Computer Systems I & II, Optimized C++, Database Technologies