Maeda F. Hanafi

Software Engineer

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Education

Doctor of Philosophy (Ph.D.) in Computer Science

Sept. 2015 - May 2020

New York University (NYU) - Tandon School of Engineering — *Brooklyn, New York*

- Focus: Program Synthesis, Data Extraction, Data Visualization, Human-in-the-loop Systems, Human-Computer Interactions
- **Global Ph.D. Student Fellowship**, New York University - Abu Dhabi (NYUAD), United Arab Emirates — *Fall 2015 to Spring 2020*

Bachelor of Science (B.S.) in Computer Science, Cum Laude Award

Jan. 2010 - Dec. 2012

Southern Connecticut State University (SCSU) — *New Haven, Connecticut*

Working Experience

Graduate Student Research Assistant

May 2014 - May 2020

Human and Data Interaction Lab, New York University - Abu Dhabi — *Abu Dhabi, United Arab Emirates*

- Implemented full stack architecture of several automated data extraction tools, using React.js, Angular.js, d3.js, jQuery for the front-end interface and data visualizations and using Java, Spring MVC, and Postgres database for the back-end.
- Implemented several Java-based back-end logic to facilitate automation in data tasks, including several program synthesizers.
- Gave several seminars and talks on data extraction tools.
- Reviewed and suggested papers for students, and helped students debug project code for a data extraction course.

Ph.D. Research Intern

Summer 2017 and Summer 2015

IBM Research - Almaden — *San Jose, California*

- Collaborated with industry experts and researchers to solve research problems in deployed data extraction pipelines.

Graduate Student Teaching Assistant

Sept. 2013 - May 2014

Computer Science Department, Southern Connecticut State University — *New Haven, Connecticut*

- Graded and corrected homework and student code from courses: Algorithm Design and Analysis, Java Programming, Multimedia Systems, Information Management and Productivity Software.
- Conducted tutor sessions for Java programming.

Research Projects

`WhyFlow`: Explaining Errors in Data Extraction Pipelines

- Worked toward publication: M. F. Hanafi, A. Abouzied, M. Danilevsky, and Y. Li. 2020. Explaining Errors in Data Pipelines. In Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2020).

`Texture`: Structure Identification Over Print and PDF Documents (Paper)

- Wrote workshop paper: M. F. Hanafi, M. Mannino, and A. Abouzied. 2019. A Collaborative Framework for Structure Identification over Print Documents. In Proceedings of the Workshop on Human-In-the-Loop Data Analytics (HILDA 2019).

`SEER`: An Information Extraction Tool from User-Highlighted Text Examples (Demo, Paper)

- Published research paper: M. F. Hanafi, A. Abouzied, L. Chiticariu, and Y. Li. 2017. SEER: Auto-Generating Information Extraction Rules from User-Specified Examples. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI 2017).
- Published and demoed: M. F. Hanafi, A. Abouzied, L. Chiticariu, and Y. Li. 2017. Synthesizing Extraction Rules from User Examples with SEER. In Proceedings of the 2017 ACM International Conference on Management of Data (SIGMOD 2017).

Awards and Media

- **National Society of Leadership and Success, Presidential Award**, Southern Connecticut State University. Spring 2013.
- **Teenager Due to Graduate from SCSU this Year**, 2012. (Southern News)
- **Academic Excellency Award in Computer Science**, Honors Convocation, Southern Connecticut State University. Spring 2012.
- **Dean's List**, College of Arts and Sciences, Southern Connecticut State University. Spring 2010, Fall 2011, Spring 2012, Fall 2012.
- **13-Year-Old Conn. Muslim Headed to University**, 2009. (Fox News.) (New Haven Register.)
- **Distinguished Scholar Awards ($12,000 scholarship)**, University of New Haven, West Haven, Connecticut. Fall 2009.

Skills

Languages Java, C++/C, Python, SQL, Spring MVC, JavaScript, jQuery, d3.js, React.js, Angular.js, SASS, CSS