

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

Jan. 2010 - Dec. 2012

SOUTHERN CONNECTICUT STATE UNIVERSITY (SCSU)

New Haven, Connecticut

- **Cum Laude Award**, 3.62/4.00 GPA
- **Academic Excellency Award in Computer Science**, Honors Convocation, Southern Connecticut State University — *Spring 2012*
- **National Society of Leadership and Success, Presidential Award**, Southern Connecticut State University — *Spring 2013*
- **Distinguished Scholar Awards (\$12,000 scholarship)**, University of New Haven, West Haven, Connecticut — *Fall 2009*
- **Dean's List**, College of Arts and Sciences, SCSU — *Spring 2010, Fall 2011, Spring 2012, Fall 2012.*

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

- Designed, implemented, published workshop paper on **Texture**, an end-to-end workflow for structure identification and text extraction from print and PDF datasets.

Ph.D. Research Intern

Summer 2017 and Summer 2015

IBM RESEARCH - ALMADEN

San Jose, California

- Implemented, conducted user study on, and publish research paper on **SEER**, an end-to-end workflow for automatic information extraction from user-highlighted text examples over structured and semi-structure datasets.
- Designed, implemented, and tested **WhyFlow**, a visualization tool that synthesizes and explains errors in data extraction pipelines and data provenances.

Teaching Assistant

Jan. 2017 - May 2017

COMPUTER SCIENCE DEPARTMENT, NEW YORK UNIVERSITY - ABU DHABI

Abu Dhabi, United Arab Emirates

- Course: CS-AD 390 Capstone Data Extraction.
- Reviewed and suggested papers for students, and helped students debug project code.

Graduate Student Research Assistant

Sept. 2013 - May 2014

COMPUTER SCIENCE DEPARTMENT, SOUTHERN CONNECTICUT STATE UNIVERSITY

New Haven, Connecticut

- Co-authored and published paper on software maintenance from perspective of change theory.

Teaching Assistant

Sept. 2013 - May 2014

COMPUTER SCIENCE DEPARTMENT, SOUTHERN CONNECTICUT STATE UNIVERSITY

New Haven, Connecticut

- Courses: CSC321 Algorithm Design and Analysis, CSC152 Computer Programming I, CSC310 Multimedia Systems, CSC200 Information Management and Productivity Software.
- Graded and corrected homework and Java programming projects, and assisted students with homework assignments.
- Conducted tutor sessions for Java programming.

Research Projects

WhyFlow: Explaining Errors in Data Extraction Pipelines

- Progress Toward Publication. Maeda F. Hanafi, Azza Abouzied, Marina Danilevsky, and Yunyao Li. 2020. Explaining Errors in Data Pipelines. In Proceedings of the 2020 ACM International Conference on Management of Data (SIGMOD 2020).
- Seminar and Poster Presentation. Explaining Errors in Data Pipelines. IBM Research - Almaden, San Jose, California. September 2017.
- Poster Presentation: Diagnosing Incorrect Behavior in Large Data Pipelines. New York University Abu Dhabi Annual Research Conference 2017.

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

- Workshop Paper. Maeda F. Hanafi, Miro Mannino, and Azza 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).
- Seminar at University of California, Berkeley: Texture: Structuring Semi-Structured Documents. July 1, 2015.
- Poster Presentation. Texture: Extracting Texts using User Annotations. New York University Abu Dhabi Annual Research Conference 2015. March 2015.

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

- Publication. Maeda F. Hanafi, Azza Abouzied, Laura Chiticariu, and Yunyao 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).
- Publication and Demo. Maeda F. Hanafi, Azza Abouzied, Laura Chiticariu, and Yunyao Li. 2017. Synthesizing Extraction Rules from User Examples with SEER. In Proceedings of the 2017 ACM International Conference on Management of Data (SIGMOD 2017).
- Poster Presentation. SEER: An End-to-End Automated Workflow for Information Extraction using User Highlights. North East Database Day, Massachusetts Institute of Technology. February 2016.
- Seminar and Poster Presentation. SEER: An End-to-End Automated Workflow for Information Extraction using User Highlights. IBM Research - Almaden, San Jose, California. August 28, 2015.
- FlashExtract Learner. An implementation of an example guided, rule-based learner from Microsoft Excel. Design Technology Lab. December 2014.

Media

- Teenager Due to Graduate from SCSU this Year. Southern News. 2012. ([Link](#))
- 13-Year-Old Conn. Muslim Headed to University. Fox News. 2009. ([Link](#))
- Girl, 13, will study full time at UNH. New Haven Register. 2009. ([Link](#))

Skills

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