Ian Drosos

PhD Student
Department of Cognitive Science
University of California, San Diego (UCSD)

Updated: August 18, 2020
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iandrosos.me

Research Interests

human-computer interaction; designing and implementing tools to support and enhance the workflows of content creators, developers, data scientists, and learners;

Education

University of California, San Diego
Ph.D. in Cognitive Science — 2017 – Present
Advisor: Philip Guo

North Carolina State University
M.S. in Computer Science — 2015 – 2017
Thesis: *HappyFace: Identifying and Predicting Frustrating Learning Obstacles at Scale*, Advisor: Chris Parnin

Southern Polytechnic State University
B.S. in Computer Science — 2007 – 2011

Experience

UCSD – The Design Lab, La Jolla, CA
Researcher – Ph.D. Student — 2017 – Present
HCI research in providing better experiences for content creators, programmers, data scientists, and learners.

UCSD, La Jolla, CA
Teaching Assistant — 2018 – Present
Interaction Design (COGS120/CSE170)
- Winter 2018, 2019
- Professor: Scott Klemmer

Human-Computer Interaction Programming Studio (COGS121)
- Spring 2018, 2019, 2020
- Professor: Philip Guo

Autodesk, San Rafael, CA
Intern – User Interface Research — 01/2021 – 04/2021
Researching, prototyping, and studying Software Learning at Autodesk Research

Microsoft, Redmond, WA
Research Intern – Program Synthesis — 07/2018 – 12/2018
Researching, prototyping, and studying program synthesis interactions for data scientists on the PROSE team (microsoft.github.io/prose) [C.4]

Verizon, Alpharetta, GA
Member Technical Staff I & II – Systems Engineering — 2011 – 2015
Full-stack software engineer developing enterprise systems using Java, PL/SQL, JavaScript, and HTML

Publications

C.5 Sam Lau, **Ian Drosos**, Julia Markel and Philip Guo. 2020. The Design Space of Computational Notebooks: An Analysis of 59 Systems in Academia and Industry. In Proceedings of the Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2020).

C.4 **Ian Drosos**, Titus Barik, Philip Guo, Robert DeLine, and Sumit Gulwani. 2020. Wrex: A Unified Programming-By-Example Interaction for Synthesizing Readable Code for Data Scientists. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI 2020).
Best Paper Award (Top 1%)

C.3 Adam Rule, **Ian Drosos**, Aurélien Tabard, and James D. Hollan. 2018. Aiding Collaborative Reuse of Computational Notebooks with Annotated Cell Folding. In Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing. ACM, Article 150 (CSCW 2018).

C.2 René Just, Chris Parnin, **Ian Drosos**, and Michael D. Ernst. 2018. Comparing developer-provided to user-provided tests for fault localization and automated program repair. In Proceedings of the 27th ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA 2018).

C.1 **Ian Drosos**, Philip Guo, and Chris Parnin. 2017. HappyFace: Identifying and Predicting Frustrating Obstacles for Learning Programming at Scale. In Proceedings of the Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2017).

Programming Languages

Python, JavaScript, HTML, CSS, Java, LaTeX

Service

Reviewer, UIST 2020