

Ian Drosos

Researcher
Microsoft Research
Cambridge, UK

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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 – 2022
Thesis: *Synthesizing Transparent and Inspectable Technical Workflows*, 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

Microsoft Research, Cambridge, UK
Researcher 2022 –
HCI research in bringing intelligence to end-user programming/spreadsheets.

UCSD – The Design Lab, La Jolla, CA
Researcher – Ph.D. Candidate 2017 – 2022
HCI research in providing better experiences for content creators, programmers, data scientists, and learners.

UCSD, La Jolla, CA
Instructor 2018 – 2022

HCI Portfolio Design Studio (COGS121)

- Spring 2022

Teaching Assistant

Interaction Design (COGS120/CSE170)

- Winter 2018, 2019
- Instructor: Scott Klemmer

Human-Computer Interaction Programming Studio (COGS121)

- Spring 2018, 2019
- Instructor: Philip Guo

HCI Portfolio Design Studio (COGS121)

- Spring 2020, 2021
- Instructor: Philip Guo

Data-Driven UX/Product Design (COGS127)

- Winter 2022
- Instructor: Sean Kross

Autodesk, San Rafael, CA
Intern – User Interface Research 01/2021 – 04/2021
Researching, prototyping, and studying software learning
with the HCI and Visualization team 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.8 Kasra Ferdowsi, Jack Williams, **Ian Drosos**, Andrew D. Gordon, Carina Negreanu, Advait Sarkar, Benjamin Zorn. 2023. ColDeco: An End User Spreadsheet Inspection Tool for AI-Generated Code. (In submission).

C.7 **Ian Drosos** and Philip Guo. 2022. The Design Space of Livestreaming Equipment Setups: Tradeoffs, Challenges, and Opportunities. In Designing Interactive Systems Conference 2022 (DIS 2022).

C.6 **Ian Drosos** and Philip Guo. 2021. Streamers Teaching Programming, Art, and Gaming: Cognitive Apprenticeship, Serendipitous Teachable Moments, and Tacit Expert Knowledge. In Proceedings of the Symposium on Visual Languages and Human-Centric Computing, short paper (VL/HCC 2021).
Honorable Mention Paper Award

C.5 Sam Lau, **Ian Drosos**, Julia Markel and Philip Guo. 2020. The Design Space of Computational Notebooks: An Analysis of 60 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, Java, R, \LaTeX

SERVICE *Program Committee*, L@S 2023, VL/HCC 2023
Reviewer, UIST 2020, VL/HCC 2021, CHI 2022, CHI 2023