Ian Drosos

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

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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
Advisor: Philip Guo

2017 – Present

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

2015 – 2017

Southern Polytechnic State University
B.S. in Computer Science

2007 – 2011

EXPERIENCE

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

2017 – Present

UCSD, La Jolla, CA
Instructor
HCI Portfolio Design Studio (COGS121)

2018 – 2022

- Spring 2022

- Instructor: Scott Klemmer

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
Researching, prototyping, and studying software learning
with the HCI and Visualization team at Autodesk Research

01/2021 – 04/2021

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.7 **Ian Drosos** and Philip Guo. 2022. The Design Space of Livestreaming Equipment Setups: Tradeoffs, Challenges, and Opportunities. (In Submission).

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

Reviewer, UIST 2020, VL/HCC 2021, CHI 2022