Andrew Dempsey

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Education

Tufts University School of Engineering - Medford, MA

Bachelor of Science in Computer Science (May 2015), Cum Laude

Employment

Box, Inc. - Redwood City, CA

Software Engineer, Mobile (August 2015 - present)
Mobile Engineering Intern (June 2014 - August 2014)

Implemented several features and improvements in the Box suite of iOS clients, including refinements to Box Capture's document scanning algorithm, the ability to @mention collaborators in comments, and significant refactoring of the Box app's core architecture and caching system.

Tufts University Department of Computer Science - Medford, MA

Teaching Assistant (January 2014 - May 2015)

Instructed students and graded assignments in COMP 20: Web Programming for three semesters. The course introduces students to front-end web development in JavaScript, back-end development using Node.JS and NoSQL databases, and source control management using Git.

International Business Machines Corporation - Littleton, MA

Connections Automation & API Engineering Intern (May 2013 - August 2013)

Worked on a team of three interns to develop Sanity, a Python-based application for detecting installation problems with IBM's Connections across entire enterprise deployments. The tool is able to generate diagnostic information with machine- and application-specific error messages alongside concise, comprehensible instructions for remediation.

Tufts University Human-Robot Interaction Laboratory - Medford, MA

Research Assistant (June 2012 - August 2012)

Worked to collect qualitative data on the behavior and speech patterns of subjects interacting with artificial intelligence. The project aimed to study the effects of variations in a robot's levels of autonomy and emotional expressivity on its relationship with the human controller in a collaborative problem-solving session.

Selected Projects

CollaboRead

https://github.com/adempsey/CollaboRead
https://github.com/adempsey/CollaboRead-API
https://adempsey.github.io/projects/collaboread.pdf

A Node.JS-based platform and iOS client developed in conjunction with Tufts University Medical Center to improve the engagement of radiology lectures. The application creates an interactive classroom environment that allows medical schools to teach students through collaborative problem-solving and experiential learning.

ESCAPT: Easy Strategies for Computers to Avoid the Public Turing Test

https://github.com/adempsey/ESCAPT
https://adempsey.github.io/projects/escapt.pdf

A research paper providing an overview of the logic behind CAPTCHA challenges and methods through which they may be exploited. Included in the project is a script that can be used to decode challenges generated by the SnapHost CAPTCHA service.

Edgey: A Post-Process Approach to Cartoon Edge Drawing

https://adempsey.github.io/projects/edgey

An exploration in edge detection and cel-shaded 3D renderings in C++. The project was built in several phases: creating shape and camera abstractions, writing a recursive ray-tracer, and implementing post-process cel-shading and outline drawing.