Matthew Hull

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🏛 Education

Georgia Institute of Technology
🎓 M.S. in Computer Science   Spring 2015 - Summer 2018
▸ GPA: 3.91/4.0

Samford University   2000-2004
🎓 B.M. in Piano Performance

💼 Positions

FedEx Express / Pilot - Captain   August 2016 - Present
- Act as Pilot In Command in FAR 121 air carrier operations on Boeing 757/767 aircraft with flights operating in the U.S., Europe, and Asia.

ExpressJet Airlines / Manager - Advanced Qualification Program   January 2014 - August 2016
- Implemented and maintained the Flight Crewmember Advanced Qualification Program. Led pilot proficiency data collection and analysis projects. Coordinated Federal Aviation Administration program approvals and AQP manual revisions.

ExpressJet Airlines / Lead Ground and Simulator Instructor   May 2007 - December 2013
- Coordinate training and standardization of Ground Instructors on the EMB-135/145 Aircraft. Develop courseware for classroom learning, content for computer-based-training, and lesson plans for cockpit procedures training.

ExpressJet Airlines / Pilot - Captain   May 2006 - August 2016
- Act as Pilot In Command in FAR 121 air carrier operations on Embraer 135/145 aircraft for Contintental Express and United Express

🔍 Academic Research Experience

Instructional Associate Researcher - Polo Club of Data Science   May 2021 - Present
DARPA Guaranteeing AI Robustness Against Deception (GARD) project

🏆 Honors and Awards

✹ Outstanding Instructional Associate   2022
For teaching assistantship in CSE 6242 - Data and Visual Analytics at Georgia Tech

✹ Best Poster Award at IEEE VIS Conference   2021
For "Towards Automatic Grading of D3.js Visualizations"

📰 Publications

DetectorDetective: Investigating the Effects of Adversarial Examples on Object Detectors
S. Vellaichamy, M. Hull, Z.J. Wang, N. Das, S. Peng, H. Park, D.H. Chau
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

Towards Automatic Grading of D3.js Visualizations
M. Hull, C. Guerin, J. Chen, S. Routray, D. H. Chau
IEEE Transactions on Visualization and Computer Graphics (IEEE VIS), 2020.
🏆 Best Poster Award

Argo Lite: Open-Source Interactive Graph Exploration and Visualization in Browsers
S. Li, Z. Zhou, A. Upadhayay, O. Shaikh, S. Freitas, H. Park, Z. J. Wang, S. Routray, M. Hull, D. H. Chau
Proceedings of the ACM International Conference on Information & Knowledge Management (CIKM), 2020.

Invited Talks and Presentations

Flying Cargo During the COVID-19 Pandemic
▸ Palo Alto University Rotary Club, Palo Alto, CA (Invited Talk, Host: Jake Yoo)   September 23, 2022

Line Oriented Evaluation Design
▸ Advanced Qualification Program Working Group, Las Vegas, NV, USA (Invited Talk, Host: Allegiant Airlines) October 15, 2015

Tactical Reporting of Advanced Qualification Program Training Data
▸ World Airline Training Symposium Orlando, FL, USA (Invited Talk, Host: Julie Franzen)   April 20, 2015

Reason Code & Instructor Comments Data Analysis Methodology
▸ Advanced Qualification Program Working Group Dallas, TX, USA (Invited Talk, Host: Envoy Airlines)   February 25, 2015

Professional Service

Reviewer
▸ ACM International Conference on Information & Knowledge Management, Resource Track (CIKM)   2020

Teaching

CSE 6242: Data & Visual Analytics   Georgia Institute of Technology
● Head Teaching Assistant / Instructional Associate (1200 students)   Fall 2019 - Present
● Teaching Assistant / Instructional Associate (900 students)   Fall 2018 - Spring 2019
● Graduate Teaching Assistant (800 students)   Spring 2018 - Summer 2018

Flight Standards & Training   ExpressJet Airlines
● Simulator Instructor - Embraer 145 Aircraft   January 2016 - August 2016
● Lead Ground Instructor - Embraer 145 Aircraft   January 2012 - December 2013
● Ground Instructor - Embraer 145 Aircraft   July 2007 - December 2012

✈ Certifications

● Boeing 757 / 767 Type Rating
● Boeing 737 Type Rating
● Embraer 135/145 Type Rating
● Airline Transport Pilot
● Certified Flight Instructor - Single Engine, Multi Engine, Instrument

⚡ Skills

🔧 Programming
Python, R, JavaScript, SQL, Objective-C

</> Web Development
D3, jQuery, Ruby on Rails, PHP

🖌 Design
After Effects, Photoshop, Blender, Cinema4D

✉ References

Dr. Polo Chau, Associate Professor
School of Computational Science and Engineering
Georgia Institute of Technology
`cc.gatech.edu/~dchau/`

Dr. Mahdi Roozbahani, Lecturer
School of Computational Science and Engineering
Georgia Institute of Technology
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James Barbour, Director - Flight Standards and Training
Avelo Airlines
`JBarbour@aveloair.com`