Omi H. Johnson

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EDUCATION

Northeastern University, Boston, Massachusetts, USA — September 2020 – April 2025
Khoury College of Computer Sciences
Bachelor of Science in Computer Science and Environmental and Sustainability Studies

Relevant Courses:	Web Development* | Software Engineering* | Database Management Systems* |
**: graduate-level*	Advanced Biostatistics* | Algorithms and Data | Animal-Computer Interaction |
	Object Oriented Design | Experience and Interaction | Typography
Honors:	**GPA: 3.96/4.0** | Honors Scholarship | Dean's List
Activities:	Lead Teaching Assistant, Professional Development | Interact Animal Lab

TECHNICAL KNOWLEDGE

Languages:	HTML/CSS/JavaScript | Python | R | D | Java | SQL | C++
Frameworks/Libraries:	D3.js | React.js | Node.js | pyAgrum.py | Redux | Mongoose | Bootstrap
Databases/Software:	Git/GitHub | MySQL | MongoDB | ArcGIS | Adobe Suite
IDEs:	Microsoft Visual Studio | RStudio | XCode | Eclipse | JetBrains Suite

RESEARCH & PUBLICATIONS

Suitability of foraging habitat for *Eubalaena glacialis* under future climate scenarios in the Northwest Atlantic, in press at *Elementa: Science of the Anthropocene* — February 2022 – *Present*
Bigelow Laboratory of Ocean Sciences, East Boothbay, Maine, USA

- Forecasted North Atlantic right whale foraging habitat suitability, using a bioenergetics-based approach, across entire cross-boundary foraging range for 2055 and 2075 climate scenarios.
- Integrated zooplankton and environmental datasets to derive 2 species-specific datasets with 20K points each.
- Built 100+ experimental prey distribution models using Tidymodels in R with 4+ ML engines such as boosted regression trees (BRTs), neural networks, and generalized linear models, achieving AUCs > 90%.
- Developed original visualizations in *ggplot2* of model projections, key habitat shifts, and performance.
- First author on research paper detailing final cross-validated BRT model projections, model performance, sources of uncertainty, and right whale conservation implications.

Bridging modeling and domain expertise through visualization: A case study on bread-making with Bayesian networks, CHI 2025 Late-Breaking Work — April – August 2024
INRAE and LISN, Université Paris-Saclay, Paris, France

- Designed and developed explainable web visualization platform for decision-support, bread-making Bayesian network linking 25 sensory and quantitative metrics.
- Conducted literature review and 4 brainstorming workshops with experts to assess design requirements.
- Implemented full-stack web application in JavaScript using React, Node.js, and D3.js network visualizations connected to backend network data in pyAgrum.py within Python Flask server.
- Supported click-based evidence propagation and used design elements, animations, dynamic thresholds, exposed data composition, and customization toggles to aid user comprehension.
- Led iterative prototype demos with 6 experts to assess efficacy, with extremely positive reviews.

WORK EXPERIENCE

Ginger Labs, San Francisco, California, USA — January – August 2023
Quality Assurance Engineer Co-op

- Quality tested beta versions for top-rated iOS note-taking app Notability, with 10+ million active users.
- Performed experimental and regression tests on Swift-based app using TestFlight and XCode simulators.
- Co-led testing effort for massive app redesign project, personally catching 200+ issues (50+ release blockers) and processing external and internal feedback.
- Managed 3000+ beta testers and reported feedback via beta email address and App Store Connect.
- Coordinated with product, engineering, design, and support teams on issue details, prioritization, PR testing, design feedback, and user workarounds.

INTERESTS

French (CEFR B1/B2) | Data Visualization | Full-Stack Development | Sustainability | Bouldering