Myles Ingram
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EDUCATION

Columbia University Feb 2022
M.S. in Data Science
Capstone Project: Market Basket Analysis - Ralph Lauren
Honors and Accomplishments:

- 2nd Place in the Columbia University Data Science Institute COVID-19 Data Challenge
- Data Science Institute Student Ambassador
- President of Coalition on Race and Ethnicity in Engineering (CORE^2)
- Founder of the Afropreneurship Tech Conference
- SEAS GSA Black History Month Alumni Spotlight
- Best Project in EECS E4764 – IoT: Intelligent and Connected Systems
- Class Day Marshal

Harvard University May 2018
B.A. in Biophysics with Honors. Secondary in Neuroscience
Honors and Accomplishments:

- Captain of Harvard's Bred Ultimate Frisbee
- Manager of Quincy Grille
- NSF Research Experiences for Undergraduates (REU) Scholar
- Program for Research in Science and Engineering (PRISE) Scholar
- National Achievement Scholarship
- Radcliffe Research Partner

PROFESSIONAL EXPERIENCE

Columbia University Irving Medical Center, General Medicine Department
Senior Research Analyst Jul 2018 – Present
PI: Dr. Chin Hur

- Authored 9+ manuscripts published in various academic journals such as *Gastroenterology, Nature HSSC, Cancer Reports* and *Journal of Oncology*.
- Led a team of three on a Markov model project concerning the optimization of colonoscopy screening for Lynch syndrome.
- Developed bagging machine learning algorithm with sklearn to predict adherence to social distancing guidelines based on socioeconomic factors with 95% accuracy.
- Cleaned and organized a clinical EHR database of COVID-19 patients with SQL and python and extracted relevant information for use in multiple publications.
- Awarded supplemental NIH diversity grant for pancreatic cancer treatment model.
- Created and taught onboarding packet to seamlessly familiarize new hires with decision analytics and simulation modeling.

Daldot
Co-founder / Chief Technology Officer (Acquired by Nutromics) Nov 2018 – Aug 2021
Daldot is a company developing wearable that measures biomarkers in interstitial fluid in real-time, preventing diseases that progress due to a lack of timely and accessible data.

- Led the planning, pitching and close of pre-seed to execute preliminary R&D ($50K).
- Wrote a successful IRB application and designed preliminary study, which involved successfully extracting samples of interstitial fluid (ISF) from human participants (biobank included 150 samples).
- Ran samples using mass spectrometry at the Analytical Facility for Bioactive Molecules (Hospital for Sick Children) to collect data and better understand the composition of ISF.
- Performed exploratory data analysis and visualization on ISF biobank to gain insight into the effects of postprandial macronutrient consumption on the contents of ISF.

- Assembled strong SAB including Columbia University, UCLA Health and John Hopkins professors/physicians.
- Accepted into and completed Columbia University's BioMedx Accelerator 2021.
- Developed prototype testing protocol aimed at testing novel biosensing technology with aptamers to continuously measure metabolites in ISF.
- Negotiated for a successful exit via acquisition (Nutromics) and transferred data and assets to Nutromics.

TECHNICAL SKILLS

Programming Languages: Python, Micropython, R, SQL, Java Script, Bash Shell Scripting, HTML, CSS, Swift
Public Cloud: Amazon Web Service VPC, Lambda, API Gateway, S3, Lex, Dynamo DB, ElasticSearch, SageMaker, CloudWatch, CloudFront, CloudFormation, Cognito, Rekognition, SQS, SES, CodePipeline, Textract, IAM, Route53
Technologies: GitHub Engauge Digitizer, Wix, Tableau, Latex, LabVIEW, Microsoft Office
Operating Systems: macOS, Windows 7/8/10

PROJECTS

HydroHomie Nov 2021
- Developed an IoT water bottle with accompanying python Kivy app that could sense the hydration level of the user through machine learning, the water quality of the water in the bottle, and the water quality of the surrounding area.
- Used NYC Open Data API to obtain surrounding water quality information and various Adafruit and Arduino sensors for bottled water quality.
- Awarded Best Project in EECS E4764 – IoT: Intelligent and Connected Systems.

Market Basket Analysis for Ralph Lauren Sep 2021
- Analyzed the effectiveness and changes in basket-level customer behavior across four tests performed in stores using Amazon SageMaker and customer data provided by Ralph Lauren.
- Built a general and scalable analysis pipeline to clean customer datasets and perform market basket analysis for future tests.

Smart Watch
- Built an artificial intelligence IoT smart watch capable of NLP, displaying weather, setting alarms, and interpreting verbal commands using APIs and micropython

Interactive Lynch Syndrome Colonoscopy Strategy Prognosis Mar 2021
- Created an RShiny application with python backend to calculate the colorectal cancer incidence and mortality for various colonoscopy treatment regimens of Lynch Syndrome patients based on colonoscopy frequency, age, sex, and age of first colonoscopy.

Food and Digestive Cancer Analysis Dec 2020
- Collected data from SEER and USDA Food Availability Data System to discover correlations between consumption of certain foods and onset of digestive system cancer using R.
- Found that high fiber foods were negatively correlated with digestive cancer while beef, milk, high fructose corn syrup, and potatoes were positively correlated.

Dingus Amingus Nov 2020
- Created a webpage with AWS that could deduce an Among Us player's architype from a screenshot of that player's statistics.
- Utilized NLP and computer vision to decipher the player statistics screenshots.

Restaurant Recommendation Chatbot Sep 2020
- Developed an AWS NLP chatbot capable of recommending nearby restaurants based on cuisine type, party size, and time of day.

PRESENTATIONS

American Society of Clinical Oncology Gastrointestinal Symposium San Francisco, CA, January 2022. Ingram, M. "Cost-effectiveness of Universal Screening for Germline BRCA Mutations in Metastatic Pancreatic Cancer" (poster).

Columbia University Data Science Institute Machine Learning in Science & Engineering Conference, New York, NY December 2020. Ingram, M. "Prediction of COVID-19 Social Distancing Adherence (SoDA) on the United States County-Level" (lecture and poster).

LECTURES AND CURRICULUMS

Roux Institute Founder Residency Program
Guest Lecturer Feb 2022

- Provided tips and advice on entrepreneurship, talent acquisition, and engaging with technical experts to early-stage entrepreneurs.
- Ran workshop on developing pitch decks, pitching to potential investors, and incorporating storytelling into pitching.

Cornell Tech Runway Startup Program
Guest Lecturer Jan 2019

- Guest lecturer to the Runway program, a program that nurtures PhD scientists and postdocs to develop businesses with cutting-edge technology and from scientific breakthroughs. I spoke about using emotional intelligence in their startups.

Founder Institute
Curriculum Lecturer and Developer Sept 2018 – Nov 2018

- Developed curriculum on emotional intelligence for founders, managers and executives for all upcoming cohorts.

Harvard University
Course Developer and Co-Instructor Jan 2018 – July 2018

- Received sponsorship from Harvard University to design and teach an online course on emotional intelligence for founders and executives. Ran a marketing campaign and acquired 1,000+ students (Advisor: Leah Somerville).

PUBLICATIONS

Ingram, M., Zahabian, A., & Hur, C. (2021). Prediction of COVID-19 Social Distancing Adherence (SoDA) on the United States county-level. Humanities and Social Sciences Communications, 8(1), 87. https://doi.org/10.1057/s41599-021-00767-0

Ingram, M. A., Lauren, B. N., Pumpalova, Y., Park, J., Lim, F., Bates, S. E., Kastrinos, F., Manji, G. A., Kong, C. Y., & Hur, C. (2022). Cost-effectiveness of neoadjuvant FOLFIRINOX versus gemcitabine plus nab-paclitaxel in borderline resectable/locally advanced pancreatic cancer patients. Cancer Reports. https://doi.org/10.1002/cnr2.1565

Ingram, M., Pumpalova, Y. S., Park, J., Lim, F., Ferris, J. S., Bates, S. E., Manji, G. A., Kong, C. Y., & Hur, C. (2022). Cost-effectiveness of universal screening for germline BRCA mutations in metastatic pancreatic cancer. Journal of Clinical Oncology, 40(4_suppl), 536–536. https://doi.org/10.1200/JCO.2022.40.4_suppl.536

Ingram, M., Pumpalova, Y. S., Park, J., Lim, F., Manji, G. A., Kong, C. Y., & Hur, C. (2021). Cost-effectiveness analysis of platinum-based chemotherapy treatment options for germline BRCA-mutated locally advanced/borderline resectable pancreatic cancer. Journal of Clinical Oncology, 39(15_suppl), e16246–e16246. https://doi.org/10.1200/JCO.2021.39.15_suppl.e16246

Kastrinos, F., **Ingram, M. A.,** Silver, E. R., Oh, A., Laszkowska, M., Rustgi, A. K., & Hur, C. (2021). Gene-Specific Variation in Colorectal Cancer Surveillance Strategies for Lynch Syndrome. Gastroenterology, 161(2), 453-462.e15. https://doi.org/10.1053/j.gastro.2021.04.010

Lauren, B., Ostvar, S., Silver, E., **Ingram, M.**, Oh, A., Kumble, L., Laszkowska, M., Chu, J. N., Hershman, D. L., Manji, G., Neugut, A. I., & Hur, C. (2020). Cost-Effectiveness Analysis of Biomarker-Guided Treatment for Metastatic Gastric Cancer in the Second-Line Setting. *Journal of Oncology*, *2020*, 1–10. https://doi.org/10.1155/2020/2198960

Lopez-Martinez, D., Eschenfeldt, P., Ostvar, S., **Ingram, M.**, Hur, C., & Picard, R. (2019). Deep Reinforcement Learning for Optimal Critical Care Pain Management with Morphine using Dueling Double-Deep Q Networks. *ArXiv:1904.11115 [Cs]*. http://arxiv.org/abs/1904.11115

Laszkowska, M., Kim, J., Faye, Joelson, A., **Ingram, M.**, et. al. Prevalence of Clostridioides difficile and Other Gastrointestinal Pathogens in Patients with COVID-19. Dig Dis Sci 66, 4398–4405 (2021). https://doi.org/10.1007/s10620-020-06760-y

Spurlin, E. E., Han, E. S., Silver, E. R., May, B. L., Tatonetti, N. P., **Ingram, M. A.,** Jin, Z., Hur, C., Advincula, A. P., & Hur, H.-C. (2021). Where Have All the Emergencies Gone? The Impact of the COVID-19 Pandemic on Obstetric and Gynecologic Procedures and Consults at a New York City Hospital. Journal of Minimally Invasive Gynecology, 28(7), 1411-1419.e1. https://doi.org/10.1016/j.jmig.2020.11.012

Laszkowska, M., Kim, J., Faye, A. S., Joelson, A. M., **Ingram, M.,** Truong, H., Silver, E. R., May, B., Greendyke, W. G., Zucker, J., Lebwohl, B., Hur, C., & Freedberg, D. E. (2021). Prevalence of Clostridioides difficile and Other Gastrointestinal Pathogens in Patients with COVID-19. Digestive Diseases and Sciences, 66(12), 4398–4405. https://doi.org/10.1007/s10620-020-06760-y

Zachrison, K. S., Truong, H. Q., Eschenfeldt, P. C., **Ingram, M. A.**, Ali, A., Hur, C., & Schwamm, L. H. (2020). Abstract WP300: Optimal Prehospital Stroke Triage is Highly Dependent on Individual Hospital Reperfusion Times. Stroke, 51(Suppl_1). https://doi.org/10.1161/str.51.suppl_1.WP300

ACADEMIC SERVICE

Reviewed for Cancer Reports

INTERESTS

Ultimate frisbee, basketball, bowling, mini-golf, golf, cooking, crosswords, video games, and green.