ELLIOT G MITCHELL

New York, NY

646-932-0430 ◇ egm2143@cumc.columbia.edu

EDUCATION

Columbia University, New York, NY   2016 - Present
PhD Student, Biomedical Informatics

Columbia University, New York, NY   2016 - 2018
Master of Arts, Biomedical Informatics

Carleton College, Northfield MN   2009 - 2013
Bachelor of Arts in Psychology (with Distinction)
Concentration in Cognitive Science

WORK EXPERIENCE

Columbia University, New York, NY   2016 - Present
Graduate Research Assistant

Columbia Technology Ventures, New York, NY   2019 - Present
Technology Ventures Fellow

Epic, Madison, WI   2015 - 2016
Technical Coordinator

Epic, Madison, WI   2013 - 2016
Technical Services

Bon Appetit at Carleton College, Northfield, MN   2010 - 2013
Student Manager, Food Services

HONORS and AWARDS

Stage 1 Finalist CMS AI Health Outcomes Challenge   2019 - 2020

First Place AMIA Student Design Challenge, with Lisa Grossman   2018

First Place AMIA Student Design Challenge, with Lisa Grossman   2017

Third Place HITLAB World Cup of Voice-Activated Technology in Diabetes   2017

Top 5 Finalist Alexa Diabetes Challenge   2017

Phi Beta Kappa Carleton College   2013

Magna Cum Laude Carleton College   2013

Sigma Xi Carleton College   2013

Dean's List Carleton College   2011 - 2013

PUBLICATIONS

Turchioe MR, Burgermaster M, **Mitchell EG**, Desai PM, Mamykina L. Adapting the stage-based model of personal informatics for low-resource communities in the context of type 2 diabetes. *Journal of biomedical informatics.* 2020 Sep 20:103572. doi:10.1016/j.jbi.2020.103572

Mitchell EG, Tabak E, Levine M, Mamykina L, Albers D. Enabling Personalized Decision Support with Patient-Generated Data and Attributable Components. *arXiv preprint.* arXiv:1911.09856 November 2019

Desai PM, **Mitchell EG**, Hwang ML, Levine ME, Albers DJ, Mamykina L. Personal Health Oracle: Explorations of Personalized Predictions in Diabetes Self-Management. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems.* doi:10.1145/3290605.3300600

Mitchell EG*, Grossman LV*, Hripcsak G, Weng C, Vawdrey DK. A method for harmonization of clinical abbreviation and acronym sense inventories. *Journal of biomedical informatics.* 2018 Dec 1;88:62-9. doi:10.1016/j.jbi.2018.11.004

Grossman LV, Feiner SK, **Mitchell EG**, Creber RM. Leveraging Patient-Reported Outcomes Using Data Visualization. *Applied clinical informatics.* 2018 Jul;9(03):565-75. doi:10.1055/s-0038-1667041

*co-first author

PRESENTATIONS

CONFERENCE and WORKSHOP PRESENTATIONS

Mitchell EG,Mamykina L. Computational Approaches to Support Automated Conversational Health Coaching. *International Conference on AI in Medicine Doctoral Consortium*, August, 2020. Minneapolis, MN (Virtual)

Mitchell EG,Mamykina L. Automated Conversational Health Coaching. Plenary Presentation *National Library of Medicine Informatics Training Conference*, June, 2020. Virtual.

Mitchell EG, Mamykina L. The Coach with the Most: Towards Conversational Health Coaching. *Conversational Agents for Health Workshop (CHI 2020)*, April, 2020. Virtual.

Mitchell EG, Burgermaster M, Heitkemper E, Levine M, Miao Y, Tabak E, Albers D, Smaldone A, and Mamykina L. Feasibility of a machine learning based method to generate personalized nutrition goals for diabetes self-management. *AMIA Annual Symposium*, November, 2019. Washington, DC.

Grossman LV, **Mitchell EG**, Hripcsak G, Weng C, Vawdrey DK. A method for harmonization of clinical abbreviation and acronym sense inventories. *National Library of Medicine Informatics Training Conference*, June, 2019. Indianapolis, IN. **Best Presentation Award**

Mitchell EG, Burgermaster M, Heitkemper E, Levine M, Miao Y, Desai P, Hwang M, Tabak E, Albers D, Smaldone A, and Mamykina L. 2019. Personalized, data-driven recommendations for diabetes self-management with GlucoGoalie. *Workshop on Interactive Systems in Healthcare (WISH)* May, 2019. Glasgow, UK.

Mitchell EG, Burgermaster M, Heitkemper E, Reading M, Levine ME, Miao Y, Desai P, Mamykina L. An Intelligent Voice Assistant for Diabetes Self-Management: T2D2 Taming Type 2 Diabetes, Together. *AMIA Annual Symposium,* November, 2018. San Francisco, CA.

Mitchell EG, Burgermaster M, Heitkemper E, Mamykina L. Designing Conversational Interfaces for Diabetes Self-Management. *American Association of Diabetes Educators*, August, 2018. Baltimore, MD.

Mitchell EG, Opportunities for Conversational Voice Assistants in Chronic Disease Self-Management. *National Library of Medicine Informatics Training Conference*, June, 2018. Nashville, TN.

CONFERENCE ABSTRACTS

Mitchell E, Maimone R, Mamykina L. Characterizing Human vs. Automated Coaching: Preliminary Results. *CHI EA 20: Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems.* May 2020. doi:10.1145/3334480.3383081

Juul F, Mamykina L, Almonte A, Sepulveda J, Heitkemper E, **Mitchell EG**, Burgermaster M. User Experiences with Platano, a Dietary Self-Monitoring App for Underserved Patients with Type 2 Diabetes. *Journal of Nutrition Education and Behavior.* 2019 Jul 1;51(7):S44-5. doi:10.1016/j.jneb.2019.05.404

Burgermaster M, Juul F, **Mitchell E**, Heitkemper E, Sepulveda J, Almonte A, Mamykina L. Personal Informatics Technology for Engagement in Community Health (PI-TECH): Mixed Methods Study of Platano, a Motivationally Tailored App for Dietary Diabetes Management. *Current Developments in Nutrition*, Vol. 3, Issue Supplement_1, June 2019, nzz050. P1605119, doi:10.1093/cdn/nzz050.P16-051-19

POSTERS

Chen R, Rodriguez V, Grossman Liu LV, **Mitchell EG**, Averitt A, Bear Don't Walk O, Bhave S, Sun T, Thangaraj P, and the Columbia DBMI CMS AI Challenge Team. Engendering Trust and Usability in Clinical Prediction of Unplanned Admissions: The CLinically Explainable Actionable Risk (CLEAR) Model. *Machine Learning for Health (MLHC).* August 2020.

Mitchell EG, Burgermaster M, Heitkemper E, Mamykina L. Perceptions of Conversational Voice Assistants Among Diabetes Care and Education Specialists. *Association of Diabetes Care and Education Specialists.* August 2020.

Mitchell EG, Mamykina L. T2Coach: A conversational agent health coach for diabetes self-management. *Data Science Day 2020: Virtual Preview.* March 2020.

Mitchell EG, Mamykina L. Towards automated conversational health coaching. *New York Academy of Sciences (NYAS) Natural Language, Dialog, and Speech (NDS) Symposium*, November 2019, New York, NY.

Mitchell EG, Levine M, Mamykina L, Tabak E, Albers D. Machine learning for personalized decision support with patient-generated health data. *AMIA Annual Symposium*, November 2019. Washington, DC.

Mitchell EG, Heitkemper E, Ensari I, Albers D, Smaldone A, Mamykina L. Data-Driven Personalization of Nutrition and Physical Activity Goals for Diabetes Self-Management. *Columbia Data Science Institute (DSI) Data Science Day*, 2019. New York, NY.

Mitchell EG, Levine ME, Miao Y, Burgermaster M, Hwang M, Heitkemper E, Smaldone A, Albers DJ, Mamykina L. Automated Generation of Personalized Nutrition Goals for Diabetes Self-Management with Platano. *Columbia Data Science Institute (DSI) Data Science Day*, 2018. New York, NY.

Mitchell EG, Levine ME, Albers DJ, Mamykina L. Reflecting on Diabetes Self-Management Logs with Simulated, Continuous Blood Glucose Curves: A Pilot Study. *AMIA Annual Symposium*, November 2017. Chicago, IL.

CHALLENGES and COMPETITIONS

Mitchell EG, Grossman LV. A Multimodal Conversational Agent to Support Diabetes Self-Management. *AMIA Annual Symposium Student Design Challenge,* 2018 **(First place)**

Grossman LV, **Mitchell EG**. Visualizing the Patient-Reported Outcomes Measurement Information System (PROMIS) Measures for Clinicians and Patients. *AMIA Annual Symposium Student Design Challenge,* 2017 **(First place)**

Mitchell EG, Burgermaster M, Heitkemper E, Reading M, Levine ME, Miao Y, Desai P, Mamykina L. Presenting T2D2: Taming Type 2 Diabetes, Together. *Alexa Diabetes Challenge Demo Day*, 2017 **(Top 5 finalist)**

Mitchell EG, Burgermaster M, Heitkemper E, Reading M, Levine ME, Miao Y, Desai P, Mamykina L. Presenting T2D2: Taming Type 2 Diabetes, Together. *HITLAB World Cup Demo Day*, 2017 **(Third place)**

INVITED TALKS

Personalizing Health Goals with Data Science. *Columbia Data Science Institute Health Analytics Center Workshop*, February 2020.

Voice Technology. *Society for Nutrition Education and Behavior (SNEB) Digital Tech for Nutrition Education Roundup*, April 2019.

REVIEW ACTIVITY

American Medical Informatics Association (AMIA) Annual Symposium	2017 - Present
CHI: Late Breaking Work and Papers tracks	2018 - Present
Information Technology & People	2019 - Present

SERVICE and MENTORSHIP

Mentor, AMIA High School Scholars Program	2019
Student Planning Committee, NLM Informatics Training Conference, Indianapolis, IN SPC member for National Library of Medicine Informatics Training Conference	2019
Assistant Editor, MedInfo2019 Member of the MedInfo2019 Congress Proceedings Editorial Team	2019
Student Representative, Columbia University DBMI, New York, NY Elected by peers for two-year term	2018 - 2020
Co-Teaching Volunteer, TEALS, New York, NY Introduction to Computer Science at Inwood Academy for Leadership	2018 - 2019

PROFESSIONAL MEMBERSHIPS

Association of Computing and Machinery, **Special Interest Group on Human-Computer Interaction (SIGCHI)**	2018 - Present
American Medical Informatics Association	2016 - Present

The New York Academy of Sciences   2016 - Present

TEACHING EXPERIENCE

Teaching Assistant, Columbia University, New York, NY   Fall 2019
BINF G4008 - Intelligent Decision Support: History, Paradigms, and Applications

Workshop Organizer, The Chapin School Senior Intern Week Program   June 2019
Workshop: Evaluating the impact of interactive prototypes and systems

Co-Teaching Volunteer, TEALS, New York, NY   2018 - 2019
Introduction to Computer Science at Inwood Academy for Leadership

Teaching Assistant, Columbia University, New York, NY   Spring 2019
BINF G6001 Research Methods

Teaching Assistant, Columbia University, New York, NY   Spring 2018
BINF G4003 Symbolic Methods

Mentor, Epic, Madison, WI   2014 - 2016