# Maximilian J. Hemmrich

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## Education

## Resident Physician, Otolaryngology-Head&Neck Surgery

University of Chicago Medical Center

2021-current

Chicago, IL

- Expected graduation June 2026
- Passed USMLE Step 3 244 (1/2022)
- · Presented Grand Rounds on 3D Printing in OHNS, Optimization of Surgical Scars, and Immunotherapy in Head & Neck Cancer
- UPDATE THIS SECTION!



### **Doctor of Medicine (M.D.)**

University of Chicago Pritzker School of Medicine

2017 - 2021 Chicago, IL

- USMLE Step 1 259 (4/2019) | Step 2 CK 270 (12/2020)
- · Court and Sherry Cutting Scholar in Medical Education (2017) | Kappas Trust Fund Scholar (2018)
- Society of Hospital Medicine (SHM) Student Hospitalist Scholar (2018) | Abstract Reviewer for SHM 2020 & 2021 National Conferences
- · Pritzker TECH leader hosted 3-lead EKG building workshop, python coding/statistics course, hosted healthcare hackathon
- · Washington Park Free Clinic performed well-child visits, vaccinations, and sports physicals for uninsured patients
- · South Side Science Scholars taught after-school science lessons on nutrition, physics, and biology to 4th graders on South Side
- · Chicago Youth Programs weekly mentoring sessions to local high school students, assisted with job and college applications

## **Bachelor of Science in Engineering**

University of Michigan College of Engineering

2012 - 2016

Ann Arbor, MI

- Major in Computer Science & Engineering | Minor in Biochemistry
- GPA 3.90 / 4.00 | Dean's List Fall 2012 Winter 2016, James B. Angell Scholar
- Instructional Assistant for EECS482 (Operating Systems) and CHEM230 (Physical Chemistry)

## Professional Experience

## Software Engineer - Developer Platforms & Services

2016-2017

Sunnyvale, CA

- Built internal Ruby gem server to reduce dependence on external systems
- Scaled centralized Github Enterprise instance to achieve 99.99% uptime

## Research Projects \_\_\_\_\_

## Oral Premalignancy Progression Prediction | PI: Alexander Pearson, MD, PhD

University of Chicago Department of Hematology and Oncology

2024-current Chicago, IL

- · Building model to predict progression of oral premalignant lesions based on deep learning of histopathology
- · Combined datasets from UChicago, University of Iowa, Brazil, and the NIH

### Oral Cavity Resection Margins | PI: Sameer Alvi, MD

ENDEAVOR HEALTH / NORTHSHORE UNIVERSITY HEALTH SYSTEM

2024-current Chicago, IL

- · First prospective study to assess impact of resection margins on recurrence rate of cT1 and cT2 oral cavity SCC
- Submitted IRB and created REDCap database for HIPAA-compliant data storage
- · Patient enrollment currently ongoing

### COPD Readmission Prediction | PI: Valerie Press, MD, MPH

2018-2021 Chicago, IL

University of Chicago Department of Medicine

• PI: Valerie Press, MD, MPH · Built machine learning model using electronic health record data to predict risk of readmission after COPD excerbation

- Disseminated findings at international, national, and regional conferences
- · Received Healthcare Delivery Science Award for research excellence at 2018 Pritzker Summer Research Forum
- · Received Health Service Research Abstract Award at 2019 American Thoracic Society International Conference

### Head & Neck Cancer Recurrence Database | PI: Alexander Pearson, MD, PhD

· Built natural language processing classifier to extract tumor data from radiology notes

2020-2021

University of Chicago Department of Medicine

Chicago, IL

· Data will be combined with content extracted from pathology notes to build a recurrence database to assess efficacy of treatment modalities and determine predictors of recurrence

- Chart reviews of first 413 COVID patients at UChicago Medical Center
- · Literature review for subgroup analysis of COVID in young and obese patients
- Poster accepted at HIV Glasgow 2020 conference

## **Publications**

asdfasdf (Jan 2026). asdfasdf. Submitted to asdf.

HEMMRICH, M.J., Meleca, J., Arshad, H., Agrawal, N. (Aug 2024). Adverse events associated with the Cook-Swartz Implanatable Doppler Probe for Free Flap Monitoring - a MAUDE Database review. Submitted to American Head & Neck Society 2025 Annual Meeting at COSM.

Chokkara, S., Bonomo, M., Kaskovich, S., HEMMRICH, M.J., Carey, K., Venable, L., Rojas, J.C., Churpek, M., Press, V. (Jul 2024). Comparison of Chart Review and Administrative Data in Developing Predictive Models for Readmissions in Chronic Obstructive Pulmonary Diseases. Submitted to Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation, undergoing revisions.

Rama, N., Wallance, A., HEMMRICH, M.J., Cipriani, N., Pasternak-Wise, O., Agrawal, N., Imbery, T. (Jun 2024). Skull Base Plexiform Schwannoma of Possible Chorda Tympani Nerve Origin in a Three-year-old Patient. Published in Otolaryngology Case Reports Vol. 31.

Bonomo, M., Hermsen, M., Kaskovich, S., HEMMRICH, M.J., Rojas, J.C., Carey, K., Venable, L., Churpek, M., Press, V. (Oct 2022). *Using Machine Learning to Predict Likelihood and Cause of Readmission After Hospitalization for Chronic Obstructive Pulmonary Disease Exacerbation.* Published in International Journal of Chronic Obstructive Pulmonary Disease.

Diaz, A., Chavez, J., HEMMRICH, M.J., Smith, H, Donington, J, Portugal, L. (Apr 2022). Large non-functioning substernal parathyroid cyst: A case report and review of the literature. Published in International Journal of Surgery Case Reports.

## **Oral Presentations**

HEMMRICH, M.J., Churpek, M., Press, V. (Sep 2019). *Derivation and Validation of a COPD Readmission Risk Prediction Tool.* Presented by MJH at Society of General Internal Medicine Regional Meeting, Minneapolis, MN.

HEMMRICH, M.J., Churpek, M., Press, V. (Mar 2019). *Derivation and Validation of a COPD Readmission Risk Prediction Tool.* Presented by MJH at Society of Hospital Medicine National Conference, National Harbor, MD.

HEMMRICH, M.J., Churpek, M., Press, V. (Aug 2018). *Derivation of a COPD Readmission Risk Prediction Tool.* Presented by MJH at University of Chicago Pritzker Summer Research Forum, Chicago, IL.

## **Poster Presentations**

Hermsen, M., Bonomo, M., HEMMRICH, M.J., Kaskovich, S., Churpek, M., Press, V. (Aug 2020). *Predicting 90-Day Readmission Risk Among Chronic Obstructive Pulmonary Disease Patients: Gold Standard Cohort vs. Administrative Data.* Presented by MH at American Thoracic Society International Conference, Virtual due to COVID.

Bonomo, M., Hermsen, M., Kaskovich, S., HEMMRICH, M.J., Churpek, M., Press, V. (Aug 2020). *Toward Personalized Care: The Value of Chart Reviewed Datasets in Predicting Cause of Readmission.* Presented by MB at American Thoracic Society International Conference, Virtual due to COVID.

Sherer, R., UChicago COVID ID Consult Service Study Group (Sep 2020). Cancer, transplantation, and other immunocompromising conditions were not significantly associated with severe COVID-19 or death in hospitalized COVID-19 patients in Chicago. Presented by RS at HIV Glasgow Congress, Virtual due to COVID.

HEMMRICH, M.J., Kaskovich, S., Churpek, M., Press, V. (May 2019). Accuracy Comparison of a Machine Learning Readmission Prediction Model with HOSPITAL and PEARL Scores for COPD Inpatients. Presented by MJH at American Thoracic Society International Conference, Dallas, TX.

Kaskovich, S., HEMMRICH, M.J., Churpek, M., Press, V. (May 2019). *Matching Patients with COPD to Personalized Care: A Novel Machine-Learning Tool to Predict Cause of 90-day Readmission*. Presented by SK at American Thoracic Society International Conference, Dallas, TX.

## **Skills**

LanguagesEnglish (native)| German (native)Tech StackPython (Pandas/Numpy)| C++ | Ruby | GitPersonal InterestsTennis | Weightlifting | Chess | Investing

Maximilian J. Hemmrich Curriculum vitae