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# **EDUCATION**

Carle Illinois College of Medicine, Champaign, IL

Fourth-year medical student, anticipated graduation May 2023

Mills College, Oakland, CA

Post-baccalaureate Pre-medical Certificate, May 2018

University of California, Davis, CA

Bachelor of Science, Biological Systems Engineering, June 2011

## **ELECTIVE COURSEWORK**

University of Texas San Antonio:	Cardiothoracic Surgery	(planned 01/30/2023 - 02/24/2023)
Emory University School of Medicine:	Cardiac Surgery	(planned 01/03/2023 - 01/27/2023)
Yale School of Medicine:	Cardiac Surgery	(planned 11/07/2022 - 12/02/2022)
Harvard Medical School:	Thoracic Surgery	(08/01/2022 - 08/26/2022)
Baylor College of Medicine:	Cardiothoracic Surgery	(05/23/2022 - 06/17/2022)
Carle Illinois College of Medicine:	Vascular Surgery	(04/11/2022 - 05/08/2022)
	Neurosurgery I	(03/14/2022 - 03/27/2022)
	Surgical Pathophysiology	(07/05/2021 - 08/01/2021)
	Adult Intensive Care	(06/07/2021 - 07/04/2021)

## **EMPLOYMENT**

Carle Illinois College of Medicine, Champaign, Il

April 2020 – Present

Peer Tutor

- All courses and clerkships completed
- By appointment

Mills College, Oakland, CA

**Teaching Assistant** 

- CHEM 107 & CHEM 108 Organic Chemistry
- BIOC 110 Biochemistry
- BIO 153 Human Physiology
- BIO 034N Human Physiology for Nurses

Peer Tutor at the Office of Learning, Advising, and Balance

Individual tutoring by appointment in all courses above, plus Physics series

August 2017 – May 2018

#### **EMPLOYMENT** (continued)

Alcon Laboratories, Inc., Lake Forest, CA

June 2012 - August 2016

Territory Manager II

- Field service territory included San Francisco Bay Area to Reno, NV
- Repaired and maintained over 250 pieces of surgical equipment for:
  - o Phacoemulsification, vitreoretinal surgery, photocoagulation, excimer laser eye surgery, surgical microscopy, refractive diagnostics

#### Phoenix Research Laboratories, Pleasanton, CA

*May 2011 – June 2012* 

Manufacturing Engineer

- Installed and in-serviced on Micron II and Micron III retinal imaging microscope
  - o Optical coherence tomography (OCT), photocoagulating laser, focal & full-field (Ganzfeld) electroretinography (ERG), slit lamp anterior segment imaging, trabecular meshwork gonioscopy
- Led shipping/receiving, animal husbandry, technical service, manufacturing processes

#### Caffe Italia Restaurant, Davis, CA

July 2007 – March 2011

- Employee Trainer, Senior Server, and Lead Employee for off-site catering
- 20-30 hours per week during undergraduate studies

### DeVino's Pizza & Pasta, Pleasant Hill, CA

May 2003 - July 2007

- Nights and weekends during high school
- Promoted five times and left as supervisor

## **PUBLICATIONS & POSTERS**

Hojati, A., Policarpio, J., Wheeler, M., & Rowitz, B. (Submitted for pre-print 2022 September 27). Repair of Bowel Perforation: Endoscopic State of the Art. *Research Square* 

Policarpio, J.A. (Submitted 2022, September 5). Generation X: Reaching the Minds of Residents and Fellows. *CTSNet*.

Policarpio, J. A., Derrick, M. J., & Mehta, S. S. (In Press, pre-proof published 2022, August 6). Anomalous Right Coronary Artery from the Pulmonary Artery: An Institutional Report. *JTCVS Techniques*. DOI: https://doi.org/10.1016/j.xjtc.2022.07.023

Hojati, A., Policarpio, J., Yerrabelli, R.S., Wheeler, M.B., Rowitz, B. (2022, July 22). Patch Repair for Intestinal Perforation Closure in an Ex-Vivo Porcine Model with Burst Pressure Characterization. *Research Square*. DOI: https://doi.org/10.21203/rs.3.rs-1842208/v1

Policarpio, J., Pro, L., Gersh, B., & Saif, T. (2022, April 8). *docAssIst: The Doctor's Artificial Assistant* [Poster presentation]. 20th Annual Health Innovation Research Day, Carle Illinois College of Medicine, Champaign, IL.

Hojati, A., Policarpio, J., Wheeler, M., & Rowitz, B. (2022, April 8). *Burst Pressure Characterization of Bowel Perforation Repair in Ex-Vivo Animal Model* [Poster presentation]. 20th Annual Health Innovation Research Day, Carle Illinois College of Medicine, Champaign, IL.

MacInnis, B., Policarpio, J., & Wallon, R. (2022, March 25). *Rethinking Anki: An Innovative Gamification Addon* [Virtual presentation]. Carle Illinois College of Medicine Curriculum Retreat, virtual.

Valasapalli, S., Sathe, S., Policarpio, J. A., & Mantha, S. (2021). A Rare Case of Quadruple Negative GIST with an Unusual Presentation in a Young Female, Report of a Case. *Journal of Oncology Research Review & Reports*. *SRC/JONRR-163. J Oncol Res Rev Rep.* 

MacInnis, B., Policarpio, J., & Wallon, R. (2021, October 28-29). *Rethinking Anki: An Innovative Gamification Add-on* [Virtual poster]. Virtual 5<sup>th</sup> Annual Medical Education Learning Specialists (MELS) Meeting.

Policarpio, J., MacInnis, B., & Wallon, R. (2021, June 12-17). *Augmenting Anki: Gamification of Software to Promote Retrieval Practice with Spaced Repetition* [Virtual poster]. Virtual 25<sup>th</sup> Annual International Association of Medical Science Educators (IAMSE) Conference.

## **PUBLICATIONS & POSTERS (continued)**

Poster Presentation Abstracts, 25th Annual Meeting of the International Association of Medical Science Educators, June 12-17, 2021. Med Sci Educ. 2021 Nov 29;31(Suppl 1):29-110. doi: 10.1007/s40670-021-01454-0. Epub ahead of print. PMID: 34868729; PMCID: PMC8629599.

Policarpio, J., MacInnis, B., & Wallon, R. (2021, April 16). *Augmenting Anki: Gamification of Software to Promote Retrieval Practice with Spaced Repetition* [Virtual presentation]. 19th Annual Health Innovation Research Day, Carle Illinois College of Medicine, virtual.

Hojati, A., Policarpio, J., Wheeler, M., & Rowitz, B. (2021, April 16). *Ex-vivo animal testing of small burst pressure and state of the art repair of bowel perforation* [Virtual presentation]. 19th Annual Health Innovation Research Day, Carle Illinois College of Medicine, virtual.

Panigrahy, N., Policarpio, J., & Ramanathan, R. (2020). Multisystem inflammatory syndrome in children and SARS-CoV-2: A scoping review. *Journal of pediatric rehabilitation medicine*, *13*(3), 301-316.

Policarpio, J., Van Orman, C., Few, N., & Zhu, R. (2020, March 6). *Scaling, Standardization, and Normalization of Inter-Reviewer Scoring of Medical School Applications* [Poster presentation]. 18th Annual College of Medicine Research Day Symposium, University of Illinois at Urbana-Champaign, IL.

Policarpio, J. A., Mehta, S. S., & Derrick, M. J. (2020, March 6). *Anomalous Right Coronary Artery from the Pulmonary Artery: An Institutional Report* [Oral presentation]. 18th Annual College of Medicine Research Day Symposium, University of Illinois at Urbana-Champaign, IL.

## **PROJECTS**

### **Heart Disease Prediction using Machine Learning**

- Live prototype available at <u>www.heartdiseasepredictor.com</u>, coded in Python
- Data from the CDC's 2020 Behavioral Risk Factor Surveillance System (BRFSS) Telephone Survey
- Description website coded in HTML, CSS, and Markdown: https://heartdiseaseprediction.com/

#### **Stroke Prediction using Machine Learning**

- Live prototype available at <u>www.strokepredictor.com</u>, coded in Python
- Data from the CDC's 2020 Behavioral Risk Factor Surveillance System (BRFSS) Telephone Survey

## Anki with Friends software add-on to the Anki flashcard software

- Coded client and server software in Python
- Maintenance of remote server with 24-hour uptime
- Coded website in HTML, CSS, and Markdown: <a href="https://ankiwithfriends.com/">https://ankiwithfriends.com/</a>
- Led a non-clinical IRB-exempt research study

# COVID en Español - http://www.covidenespanol.com/

- Website in Spanish that provides information about the COVID-19 pandemic
- Written in verbiage that reaches those with a low health literacy

## Innovation Pathway grant recipient, Carle Illinois College of Medicine

- \$2800 grant with one other student
- Literature review manuscript and ex-vivo lab study manuscript submitted on repair of bowel perforation

#### docAssIsst: The Doctor's Artificial Assistant

- Digital scribe using artificial intelligence
- Coded in Python using Google's medical conversation model Speech-to-Text API
- Software prototype produces a hypothesized speaker-diarized transcript and abstractive summarization using a bidirectional autoregressive transformer

## Medical Student Roles in Bridging Gaps in Primary Care

Leading a team of 8 students in a clinical IRB-exempt survey-based research study, now recruiting

### **PROJECTS** (continued)

### GitHub open-source software contributor

• 21 repositories with over 300 contributions in the last year: <a href="https://github.com/jopeo?tab=repositories">https://github.com/jopeo?tab=repositories</a>

# Wikipedia editor

• List of contributions available at https://en.wikipedia.org/wiki/Special:Contributions/Joepolicarpio

## **CREDENTIALS & AWARDS**

United States Center for SafeSport Training	Feb 2022
1st Place in Innovation in Industry, 20th Annual Health Innovation Research Day	April 2022
Academic Excellence Award, Carle Illinois College of Medicine	Aug 2021
19th Annual Health Innovation Research Day Program Committee member	AY2020-2021
Collaborative Institutional Training Initiative (CITI Program) Core IRB Training	Dec 2020
Pecha Kucha Electives Category Winner	July 2020
Carle Illinois College of Medicine Admissions Committee member	AY2019-2020
United States Patent and Trademark Office (USPTO) Registered Patent Agent	Sep 2018
Federal Aviation Administration (FAA) Unmanned Aircraft Systems (UAS) Pilot	Jan 2018
The President's Volunteer Service Award	Jan 2018

## **SKILLS & INTERESTS**

**Equipment**: DaVinci surgical robot, StrykeCam, 1588, 1688, Ethicon TX, GIA, EEA, and curved cutter

staplers, Zimmer Pulsavac, Covidien skin stapler, Dermabond Prineo, Prevena incision

management, V.A.C. wound vac

**Software**: Epic EHR system (over 400 smart phrases), Stryker iSuite, Microsoft Office (Word, Excel,

PowerPoint), Google Cloud APIs, Audacity audio recording and editing software, OBS video

recording and broadcasting software

Programming Languages (in order of proficiency): Python, R, JSON, Git (version control software), Linux Bash

(Unix shell), SSL for remote server management, VBA for MS Excel Macros, HTML, CSS,

XML, JavaScript

843-day streak on Duolingo, a free phone app for learning languages

Spanish, Mandarin, Italian

Pick-up Ice Hockey player

> 15 years experience

Member of social rollerblading club Inline Insomniacs at University of Illinois, Urbana-Champaign