PHOEBE DIJOUR

pdijour1@jhu.edu | 732.320.5855 | NYC Metropolitan Area

Motivated, technically-skilled biomedical engineer seeking data engineering roles in digital health and medical technology

EDUCATION

JOHNS HOPKINS UNIVERSITY

M.S.E. in Bioengineering Innovation and Design

Graduating May 2023 | Baltimore, MD

DUKE UNIVERSITY

B.S.E. in Biomedical Engineering

Minors in Chemistry & Film Studies

Graduated May 2022 | Durham, NC

SKILLS

Languages

Python (Torch, Pandas, Seaborn, Tkinter, Matplotlib, NumPy) • MATLAB • SQL
Arduino • NetLogo • JavaScript & CSS

Software Tools

VS Code • Jupyter • GitHub • MongoDB
Adobe (Pr, Ai & Ps) • Figma • COMSOL

Systems-Level

Project Management • Needs Finding
Solution Landscaping • Systems Design
Unit Testing • V & V • FDA Regulations

COURSEWORK

Biomedical Data Science
Clinical Data Analysis with Python
Data Querying in Health
Medical Software Design
Diagnostic Imaging Systems

LANGUAGES

English (native)
Russian (fluent)

AWARDS

Pratt Tissue Engineering Research Fellow
- Poster Symposium & Senior Thesis

CleanTech Environmental Competition
- Top 10 International Finalist

TSA Engineering Design
- 1st place NJ, 7th place nationally

New Jersey EMS CPR Save Award

LINKS

phoebedijour.com
linkedIn.com/in/phoebe-dijour

EXPERIENCE

CO-FOUNDER AND ENGINEERING LEAD

SomnOSA | Baltimore, MD — June 2022 - current

- Ideated and designed nerve stimulation prototypes for untreated form of sleep apnea affecting 9M Americans. Submitted to IRB for animal and human studies.
- Conducted 500+ hours of surgery rotations and contextual commercial analysis to capture user needs, defined system features, and managed requirements.
- Developed business, regulatory, and reimbursement strategies. Patent pending.

GLOBAL HEALTH ENGINEER

Visilant | Pondicherry, India — June 2022 - current

- Designed eye-screening telemedicine app. Conducted 600-patient validation study.
- Developed systems roadmap for 2nd Gen device with EMR dashboard and deep learning for automated screening. Designed 5 iterations for additional use cases.
- Performed 150+ hours of ethnographic field research in eye camps, vision clinics, and local and government hospitals. Partnered with Aravind Eye Hospital.

PROJECTS

DATA SCIENTIST

NIH National COVID Cohort Collaborative | Baltimore, MD — Nov 2022 - current

- Performed data querying, cleaning, and sorting on real-world OMOP health records. Competed in NIH Long COVID Computational Challenge with JHU team.
- Built convolutional neural network models to predict likelihood of disease with >80% accuracy. Optimized for precision, utility, and reproducibility.

DESIGN HEALTH ENGINEERING LEAD

Duke University | Durham, NC — Jan 2021 - May 2022

- Designed mechanism to expedite ECMO circuit changeout by 80% via solution landscaping, concept refinement, and clinical & regulatory strategy. Patent pending.
- Created rhythmic auditory device for dysarthria patients using transductive anemometer sensor and gamified user interface. Executed unit and V&V testing.
- Redesigned AmbuBag for single-handed use via DFMA, FEA, and LBM analysis.

AI/ML AND GUI SOFTWARE ENGINEER

Duke - Harvard GAMI Engineering | Durham, NC — Aug 2020 - Dec 2021

- Performed ML image processing using neural network, K-fold cross validation, and random forest to analyze hemoglobin levels in nail beds for low-resource settings.
- Developed mobile app for robust hand imaging and hemoglobin tracking.

AGENT-BASED MODELER

Duke University | Durham, NC — May 2020 - May 2021

- Created agent-based NetLogo network theory model to predict efficacy of contact tracing on the spread of COVID-19. Presented at Intel's Future of Privacy Forum.

LEADERSHIP

TEACHING ASSISTANT

Design Studio; Bioinstrumentation | Durham & Baltimore — Aug 2019 – current

- Facilitated product design and technically assisted 30+ engineering students.
- Instructed 90+ students through circuitry and Arduino programming lab exercises.

FOUNDER & CO-TEACHER

Duke Art in Technology | Durham, NC — Aug 2019 – Dec 2021

- Founded inaugural program, curated course content, and instructed classes to incorporate art and design into engineering curriculum.