David Bichara

Cell: 302-235-9105| davidbic@udel.edu | LinkedIn | GitHub | Developer Portfolio

EDUCATION

University of Delaware — Newark, DE
Bachelor of Science, Biomedical Engineering (BME) – Honors, Computer Science Minor — *May 2023*
GPA: 3.97
Awards & Honors: BME Department Distinguished Junior Award, Tau Beta Pi Engineering Honors Society, Dean's list (All semesters)

SKILLS

- Languages: Java, C++, Python, C, SQL, JavaScript, TypeScript, Bash, HTML, CSS, XML, MATLAB, Simulink
- Tools & Technologies: REST API, AWS, Spring, Kafka, Cucumber, React.js, Next.js, Node.js, JPA, Git, Maven, Docker, Jenkins

EXPERIENCE

JPMorgan Chase — Wilmington, DE
Software Engineering Intern — *June 2022 – Present*
- Developed a **contract testing framework** to scale to all microservice applications on the Chases' central data pipeline.
- Created additional APIs and functionality on **an internal tool that processes all consumer data** at the firm including over **$2 Trillion in consumer payments** a day.
- Architect and **build a new microservice to maintain logs** using Java, Spring Boot, and Kafka.

Massachusetts Institute of Technology - Teaching Systems Lab — Cambridge, MA
Machine Learning Research Engineer — *January 2022 – Present*
- Created a Machine Learning model with **77%+ validation precision** to detect confusion in audio using supervised learning.
- Achieved a **17% increase** in validation precision by implementing gender stratification using **XGB Classifier and Python**.
- Utilized Feature Extraction and Data Segmentation in Python using Parselmouth, PyTorch, and Pandas to increase model dimensionality, publication pending.

CompSciLib — Newark, DE
Co-Founder & Chief Technology Officer — *November 2021 – Present*
- Constructed an Ed-Tech Platform to allow for computer science learners to learn concepts and performs calculations.
- Developed **40+ API endpoints** and Front-End using **Java, Spring Boot, Maven, TypeScript, HTML, CSS, React.js, and Next.js**.
- Released the Web Application with **1,000+ daily users** and **100,000+ page** visits using AWS S3.
- Secured **$6,000+ in funding** to hire and **manage and support 10 interns** by holding office hours and educational sessions.

OneTrust — Atlanta, GA
Java Developer Intern — *May 2021 – July 2021*
- Built **5 features (1 shown in OneTrust internal demo), 1 bugfix, and completed 10 tasks** in two Agile development cycles that were made available for use by OneTrust customers including many Fortune 500 companies.
- Implemented APIs, Data Transfer Objects, and Database creation/migration in two features to break up two intensely coupled Microservices using **Java, SQL, Spring Boot, Git, Maven, Docker, Bash, and Jenkins**.
- The series features provided customers more information regarding who, when, and what actions were performed on a tenant account in addition to two other smaller features.

LEADERSHIP & ACTIVITIES

Blue Hen Ethics and Philosophy Club — Newark, DE
Founder & President — *January 2020 – February 2022*
- Established framework for new ethics club which grew from **10 to 75 members**.
- Acquired funding from the University of Delaware's Philosophy Department and sponsorship from the APPEI Ethics Bowl.

Competitive Programming Club — *Founding Member* — *January 2022 – Present*
University of Delaware Residence, Life, and Housing — *Resident Assistant* — January 2021 – May 2022

PUBLICATIONS

Bichara, D.B., Dagher, Z.R. & Fang, H. (2021). What do COVID-19 Tweets Reveal about Public Engagement with Nature of Science?. *Science & Education*. https://doi.org/10.1007/s11191-021-00233-y
- Published study on how the public engages with nature of science in COVID-19 related tweets which received **2260+ accesses** and had the **3rd most amount of online engagement** out of all papers in the journal's history.
- Constructed the backend and user interface of data collection software using Python and MATLAB to encode mined tweets stored in University of Delaware database.