Alexey Kovalenko

Ann Arbor, MI 48104 | 2000ako@gmail.com | alexeyk@umich.edu | +1 424 217 9712

Education

University of Michigan - Ann Arbor, MI   Sept 2020 – May 2025
Bachelor of Science in Biochemistry and Computer Science, **GPA: 3.96/4.00**
Minor: Mathematics

- General Chemistry at Harvard Summer Session - Cambridge, MA (2017)
- Biology, Astronomy, Literature Courses from Yale Summer Session - New Haven, CT (2018)
- Elementary Probability and Statistics I and II from Syracuse University - Syracuse, NY (2020)

Professional Experience

Programmer   Oct 2023 – Present
Lomize Group at the University of Michigan - Ann Arbor, MI

- Reduced system errors and improved reliability through rigorous debugging processes.
- Improved software efficiency by creating automated scripts and tools.
- Deployed three website backends on collaborators' server at Lehigh University.
- Developed scripts for automated database updates, using sequence and structure alignment tools for finding best matches.

Teaching Assistant   Sept 2023 – May 2024
Organic Chemistry Lab (ORGO 216) at the University of Michigan - Ann Arbor, MI

- Led second semester Organic Chemistry lab section.
- Helped students master standard analytical techniques like NMR, IR, TLC, etc.
- Guided students through experiments and helped with standard extraction techniques like recrystallization and LLE.
- Graded exams for Organic Chemistry II (theoretical course).

Cardiology Clinic Medical Assistant   Sept 2022 – Aug 2023
Dr. Vicky D. Savas Cardiology - Southfield, MI

- Took patients' vitals.
- Performed EKG, blood draws, and assisted with patient sign-ins.
- Managed patient chart documentation.

Research Assistant   June 2021 – May 2023
The Walter Lab at the University of Michigan - Ann Arbor, MI

- Used single-molecule kinetics to elucidate the mechanism of transcription factors in prokaryotes.
- Designed and optimized MATLAB codes for analysis of microscope data.
- Assisted with writing code for microscopic tweezers.
- Implemented a Machine Learning model for fluorescent data analysis.
- Received Summer Undergraduate Research Fellowship and American Chemical Society Physical Chemistry Award.

Community Center Assistant   August 2021 – May 2022
Markley Dorm - Ann Arbor, MI

- Assisted residents, handled package deliveries, and managed access cards.

Dental Clinic Internship   January 2021 – August 2021
Bloomfield Hills Dental Associates - Bloomfield, MI

- Sterilized equipment after procedures.
- Assisted with cleanings, root canals, and extractions.

Community Service Experience

Refugee Program Volunteer June 2019
Cross-Cultural Solutions - Ritsona, Greece

- Organized and distributed donations.
- Oversaw laundry scheduling appointments and completed orders.

St. Andrew's Breakfast Program Volunteer March 2020 – Present
St. Andrew's Episcopal Church - Ann Arbor, MI

- Served hot breakfast to those in need.

Skills

- **Programming:** LaTex, Python, C++, Swift, React JS, MATLAB, SQL, Ruby, HTML, CSS.
- **Technical:** Amazon Web Services, Microsoft Office, Excel, Experimental Design, FTIR, UV/Vis, NMR, ELISA, Immunoassays, SDS-PAGE, qPCR, Fractional Distillation, Density Gradient Centrifugation, TLC, LLE, Cloning, Protein Purification, Fluorescent Labeling, Total Internal Reflection Fluorescence (TIRF) Microscopy.
- **Languages:** English, Russian, French.