SEOJIN JUNG

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EDUCATION

Amherst College, Amherst, MA — MAY 2024

- GPA: **3.7/4.0**
- Bachelor of Arts in **Computer Science** and **Biology with Honors**
- Relevant Coursework: Cell Structure & Function, Disease Ecology, Microbiology, Data Structures, Algorithms, Machine Learning, Computer Systems, Databases, Statistics, Insect Biology, Operating Systems, Advanced and Alternative Memory Systems

RESEARCH EXPERIENCE

Blanchard Lab, University of Massachusetts, Amherst, MA — MAY 2023 — MAY 2024

Lab Researcher - Honors Thesis

- Conducted extensive literature review of forest soil microbiome ecology, bacterial decomposers, and metagenomics techniques
- Learned and used specialized software, such as microTrait and DESeq, to analyze 817 metagenome-assembled genomes for identification and differential abundance measurements
- Collaborated extensively with working group EMERGENT, lab members, and the Joint Genome Institute, including presenting progress reports and working together on code
- Findings highlighted downward trend of microbial populations in Harvard Forest in response to long-term soil warming, as well as limitations of the tools used in the project

Purdy Lab, Amherst College, MA — DECEMBER 2022 — SEPTEMBER 2023

Lab Researcher

- Created an in-house RNA transcript analysis pipeline for comparing transcripts of wild-type and mutant strains of *Vibrio* and *Pseudomonas* bacteria
- Read scientific literature involving RNASeq procedures and analysis from both a biological and computational perspective
- Independently learned data science techniques (Python packages, FTP/SCP/SFTP, bash script, R)
- Assisted colleagues with the computational aspects of their project utilizing Breseq

STEM Incubator, Amherst College, MA — JUNE 2021 — JULY 2021

Research Fellow

- Gained laboratory and research experience in biology, chemistry, and biostatistics, synthesizing copolymers, investigating the role of microtubules in cell mitosis, and conducting simulated health studies
- Collaborated with peers to ask and pursue research questions and come up with new solutions
- Collected data during various projects and presented findings to each other and wider audiences

WORK EXPERIENCE

Computer Science Department, Amherst College, MA — SEPTEMBER 2023 — MAY 2024

Teaching Assistant

- Instructed labs in Introduction to Computer Science I (Fall 2023) and Computer Systems (Spring 2024)
- Held weekly evening help sessions
- Acted as an additional learning resource for students

Affiliated Lab Directors, Inc., FL — MAY 2022 — AUGUST 2022

Remote intern

- Completed projects that presented real-world lab directorship scenarios, such as lab inspections, proficiency testing, licensure, and standard operating procedures.
- Became familiar with components of urine drug analysis, including HPLC-MS/MS, metabolites, Levy-Jennings charts (quality control), and Medicare billing
- Learned about procedures, regulations, and administration of clinical laboratories under the guidance of a licensed lab director

Science Center, Amherst College, MA — SEPTEMBER 2020 — MAY 2021

Healthy Herd Advocate

- Encouraged safe and healthy behaviors among students on Amherst College campus
- Hosted events that raise awareness about the importance of maintaining health as well as the effects of the pandemic on students' mental and emotional wellbeing

TECHNICAL COMPETENCIES

- Tools: Significant experience with Microsoft Office, Sheets/Excel, Adobe Premiere, Audacity, GIMP (GNU Image Manipulation), Jupyter, Visual Studio Code, Git, Unix/Linux
  Experience with Adobe Photoshop, ArcGIS, Gephi
- Programming: Significant experience with Python, Java, R, shell scripting
  Experience with Intel x86 Assembly, RISC-V Assembly, C, C#, JavaScript, LaTeX, SQL, HTML5/CSS
- Other Research Skills: Pipetting, microscopy, ImageJ/Fiji, processing and analyzing data, PCR, bioinformatics. Field skills include handling, banding, and taking physical measurements of small birds, usage of RFID tags