JENNINGS ZHANG

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EDUCATION

Northeastern University   Boston, MA
BSc in Computer Science/Biology Combined Major   *2019–2021*

· 3.60/4.00 GPA, Khoury College Dean's List, Honors in the Discipline

COMPUTATIONAL BIOLOGY

Fetal-Neonatal Neuroimaging Developmental Science Center (Neuroinformatics)   Boston, MA
Boston Children's Hospital   *Summer 2019–Present*

· Developed full-stack software platforms enabling translational research in neuroradiology.
· Optimized clinical + research cyberinfrastructure, improving performance of data retrieval by 200x.
· Designed and executed experiments to study novel quantitative methods for anatomical fetal brain research.
· Deployed Kubernetes on a hybrid cloud architecture with the Prometheus stack using Kubespray and Helm.
· Mediated technical communication between diverse, interdisciplinary research teams.
· 6 published co-authorships in journals, 3 posters at OHBM 2020, 2022, and 2023, completed a peer review for *SFN*.

Brown Lab (Genomics)   Boston, MA
Dana Farber Cancer Institute + Broad Institute   *Fall 2020*

· Performed end-to-end translational biobanking research from benchside wet lab to cloud bioinformatics.
· Executed data science operations including database management and clinical sequencing data analysis.

Advanced Drug Delivery Research Laboratory (Bioengineering)   Boston, MA
Northeastern University   *Spring 2020*

· Award recipient for Northeastern University's PEAK creative research project awards ($500).
· Analysis and visualization of animal scRNA-seq and bacterial metagenomic data using Python and R.
· Pioneered the lab's collaboration with research computing and use of HPC for scientific data analysis.

McGill Centre for Integrative Neuroscience (Neuroinformatics)   Montréal, QC
Montréal Neurological Institute   *Fall 2018*

· Optimized an image processing pipeline in Perl for semi-automatic analysis of fetal neuroimaging data.

TEACHING

Mentor for the Outreachy Internship Program   *2021 – 2022*

· Mentored remotely 4 interns from under-represented backgrounds.
· Focused projects on in-demand software developer skills, many interns found industry jobs afterwards.

Teacher's Assistant for CS 528, EC 528, & CS 6620   *2020 – 2023*

· 5-time mentor of masters-level course in cloud-computing sections at Boston University and Northeastern University.
· Managed and oversaw student semester projects about OpenShift, cloud reliability, and cloud observability.

HOSPITAL VOLUNTEERING

COVID-19 Response Team   Boston, MA
Boston MRC, MA Responds   *Summer 2020*

McGill University Health Centre   Montréal, QC
Montréal General Hospital   *Fall 2018*

Johns Hopkins Medical Institute   Baltimore, MD
Outpatient Clinic   *Summer 2017, 2018*

TECHNICAL SKILLS

Programming	Rust, (Typed) Python, JavaScript + TypeScript (Vue, Preact, Express), Java, SQL, Bash
Containers	Kubernetes, OpenShift, Kubespray, Helm, Prometheus, Docker, Podman, Apptainer/Singularity
Dev-ops	Linux systems administration, Cisco CCNA LAN networking, Github Actions, Gitlab CI
Biology	BSL-2 work experience, bacteria isolation and staining, eukaryotic DNA isolation, western blot