

# JENNINGS ZHANG

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## EDUCATION

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**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

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**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.
- Deployed Kubernetes on a hybrid cloud architecture with the Prometheus stack using Kubespray and Helm.
- Designed algorithms and novel quantitative methods for anatomical fetal brain research.
- 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

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**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

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**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

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**Programming** Rust, 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