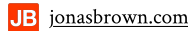


Jonas Brown

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Seattle, WA



SUMMARY

University of Washington senior studying biology and neural computation. I build single-cell RNA-seq analysis pipelines and co-developed the database my lab uses to link tissue specimens, patient records, and inventory. I'm seeking a data science internship where I can apply these skills to biotech and health problems at production scale.

WORK EXPERIENCE

MARCH, 2026 - PRESENT

Undergraduate Researcher, Emerson Lab, Seattle Children's Research Institute, Seattle, WA

- Analyzed single-cell data to evaluate how well lab-grown organoid models reproduce the cell types of healthy brain tissue.
- Presented results at weekly lab meetings and annotated re-producible code directories, enabling members of the lab to run scripts independently.
- Co-developed the lab's specimen and patient data management system, replacing spreadsheet-based tracking with a database that links tissue specimens, patient records, and inventory location.

MAY, 2026 - PRESENT

Treasurer, Synapttech RSO, University of Washington, Seattle, WA

- Authored a technology grant proposal that secured ~\$250,000 to purchase neural hardware.
- Contributed code to filter unwanted noise signals from EEG data in a student-led EEG sleep monitoring project.

SEP, 2025 - PRESENT

Team Member, Ivar's at Stadiums, Seattle, WA

- Served high-volume game-day crowds under tight turnaround while maintaining food safety and order accuracy.

JAN, 2021 - JUN, 2023

Lifeguard & Swim Instructor, Valley Athletic Center, Tumwater, WA

- Coached 15+ swimmers weekly, from beginners to competitive athletes, in stroke mechanics, race strategy, and water safety.
- Administered emergency response protocols using CPR/AED; conducted ongoing patron safety monitoring across the pool area.

PROJECTS

Glioblastoma Embedded Cerebral Organoid scRNA-seq Pipeline

- Engineered an end-to-end Scanpy scRNA-seq pipeline (QC, dimensionality reduction, cell-type annotation) for four glioblastoma-embedded cerebral organoid models. Generated preliminary data for a lab grant applications demonstrating that tumor and non-tumor cells could be distinguished, supporting the lab's use of organoids as cancer research models.
- Annotated the 3-month-old organoid cells against a fetal human brain atlas and identified ~9,000 cells misannotated as epithelial, a cell type not expected in neural organoids, from their implausible placement on the UMAP. Traced the error to references not built for organoid tissue.
- Developed a support vector machine on the GBmap glioblastoma atlas and re-annotated the dataset, which reassigned the mislabeled population to radial glia; validated the results against CellTypist, with ~99% agreement on immune and vascular cells.

NeuroSignal Interview App, NeuroHackathon

- Designed the backend for an app that measured heightened alpha brain waves from an EEG as an indicator of the participant lying.
- Synchronized the transcribed audio of a participant with their real-time EEG signals, to show how their indications of lying lined up with their responses to yes or no questions.

Independent Game Development, Unity and Blender

- Built 3D games in Unity: an endless runner, a box-breaking puzzle game, and a momentum based battle game.
- Programmed C# scripts for player movement, physics UI, menu screens. Modeled and textured 10-20 3D assets in Blender.

EDUCATION

SEP, 2023 - JUN, 2027

Bachelor of Science in Biology: Molecular/Cell Development, minor in Neural Computation and Engineering, University of Washington, Seattle, WA

SKILLS

Languages: Python, R, C#

Libraries: Pandas, NumPy, Scanpy, Scikit-learn, Infercnvpy,

Methods: Dynamical-systems modeling, scRNA-seq QC and clustering, Cell-type annotation, SEM

Tools: Git, Linux, Jupyter, CLI AI tooling, Blender