

// BACKEND ENGINEER

Ashley Bruce

San Francisco, CA

CONTACT

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CORE LANGUAGES

Java Expert

Python Proficient

SQL Proficient

JavaScript Familiar

TECH SKILLS

- Data Analysis
- Machine Learning
- Technical Writing

TOOLS & TECH

- Pandas
- NumPy
- Jupyter
- Docker
- Postman
- Spark
- Kafka
- Prometheus
- Hazelcast
- Jaeger

SOFT SKILLS

- Problem Solving
- Communication
- Collaboration
- Dependability

LINKS

www.ashleynicolebruce.com
github/ashleybruce
linkedin/ashleynicolebruce

// SUMMARY

Backend engineer with 4 years experience in building distributed data systems at scale, and a research background in machine learning and computational biology — including a publication at MICCAI 2022. Experienced in Java and Python across both production systems and research workflows. Looking to move into a role where engineering and research intersect.

// EXPERIENCE

Software Engineer

Associate Software Engineer

Veeva Systems · San Francisco, CA

Apr 2024 – Present

Aug 2022 – Apr 2024

- Engineered distributed sync infrastructure serving hundreds of thousands of records, supporting both full-refresh and incremental data synchronization between cloud and offline-capable client devices.
- Designed and implemented processing logic for internal upload pipelines to handle specialized record types — including net-new API endpoints for novel upload flows — defining API contracts across multiple product teams and ensuring correctness at scale.
- Contributed to a large-scale platform migration from a Salesforce-based legacy system to an internal native platform, rewriting and validating sync services to preserve data integrity across the transition.
- Built reactive, asynchronous backend services in Java within a distributed systems environment; with exposure to Kafka and Spark-based messaging and data processing, Hazelcast-backed state management, and observability tooling via Prometheus and Jaeger.
- Served as a cross-functional collaborator between the sync team and several product teams, translating product requirements into backend data contracts and system behavior.

Graduate Student Researcher

Bionic Vision Lab · UCSB

Oct 2021 – Jun 2022

- Developed a greedy optimization framework in Python using dictionary learning and evolutionary algorithms to maximize visual subfield coverage in epiretinal prostheses; work accepted and published at MICCAI 2022.

Dynamic Networks: Analysis and Modeling Lab · UCSB

- Contributed to ongoing research modeling signed time-series graph data to represent group dynamics, developing graph-based representations of interpersonal interactions using deep learning techniques.
- Applied deep learning to molecular data to learn rich embeddings, gaining hands-on experience and building ML pipelines using Pandas and NumPy.

Technical Mentor and Instructional Assistant

Cal Poly, SLO · UCSB

Mar 2015 – Sept 2021

- Designed and executed data science projects that analyzed real-world datasets to apply topics in machine learning, statistics, and data visualization.
- Led discussion sections, hosted office hours, and conducted workshops on topics in Biology, Chemistry, Physics, and Computer Science.
- Created and delivered project, lecture, and course materials to students.

// EDUCATION

M.S. Computer Science

University of California, Santa Barbara

2020 – 2022

A.S. Computer Science

Cuesta College, San Luis Obispo

2019 – 2020

B.S. Biological Sciences, Biotechnology Minor

California Polytechnic State University, San Luis Obispo

2015 – 2019