Bennett R. Wu

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Education

University of Illinois Urbana Champaign

GPA 3.93 / 4.00

Combined BS-MCS in Computer Science

Aug 2022 - May 2026

• **Coursework**: Algorithms, Artificial Intelligence, Computer Vision, Computer Architecture, Cloud Computing, Cryptography, Database Systems, Data Structures, Distributed Systems, Parallel Programming (CUDA)

Work Experience

Amazon Seattle, WA

Software Development Engineer Intern

Jun 2025 - Aug 2025

- Architected and implemented a scalable data analysis pipeline to detect patterns in logistics data, processing over 30 billion GPS data points by leveraging AWS EMR, AWS Glue, and Apache Spark
- Deployed AWS infrastructure (EMR, Glue, Step Functions, S3, RDS, Lambda) using AWS CDK to eliminate manual configuration and ensure repeatable deployments
- Developed a full-stack web application with an interactive map view and on-demand filtering, enabling investigators to quickly visualize and investigate results and address a critical data observability gap

Expedia Group Chicago, IL

Software Development Engineer Intern

May 2024 - July 2024

- Eliminated the need for 184 duplicate licenses by unifying fragmented Salesforce integration
- Integrated a Kafka consumer to process ad campaign events in a Kotlin SpringBoot application
- Collaborated with cross-functional teams to validate project requirements, ensuring on-time and accurate delivery of key features

AbbVie North Chicago, IL Summer Worker May 2023 - Aug 2023

- Slashed analysis time from one week to a few minutes for nuclear magnetic resonance spectra analysis through automation by Python scripts
- Ensured seamless machine learning data collection by building a web application on AWS for scientists to quickly view and validate machine predictions to provide human-in-the-loop feedback

Projects

ScribeAR github.com/scribear

Python, Node.js, Typescript, React

Aug 2024 - Current

- Co-developed ScribeAR, a live captioning system for classrooms that improves accessibility in courses and office hours
- Architected and implemented session management backend that enables users to instantly access the transcription sessions on their own devices, such as phones or AR glasses, via a QR code
- Engineered backend transcription service that provides accurate and low latency (< 2 second) automated speech recognition for multiple concurrent audio streams using OpenAl Whisper

NER Extension

github.com/bennettrwu/ner-extension

PyTorch, Python, TypeScript

Aug 2023 - Aug 2023

- Built and trained transformer machine learning model detailed in *Template-Based Named Entity Recognition Using BART (Cui, Leyang et al., 2021)* to perform named entity recognition (e.g. people, locations)
- Implemented Chrome browser extension to allow user to interact with language model to highlight named entities on websites. Demo here: youtu.be/Gim27R5bt1w

Technical Skills

Languages: C/C++, Python, Java, JavaScript, TypeScript, Kotlin

Databases: PostgreSQL, MySQL, MongoDB

Frameworks / Libraries: React.js, Node.js, SpringBoot, OpenCL, OpenCV, NumPy, PyTorch, Matplotlib Tools / Technologies: AWS, CUDA, Apache Spark, Kafka, GNU/Linux, Git, Docker, GitHub Actions