Robert Hand

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EDUCATION

University of Illinois at Urbana-Champaign   Expected May 2027
Bachelor of Computer Science   *Cumulative GPA: 3.9/4.0*
Relevant Coursework: Applied Machine Learning, Database Systems, Text Information Systems, Data Structures and Algorithms, System Programming, Numerical Methods, Linear Algebra, Software Design Lab

EXPERIENCE

Software Engineering Intern   May 2025 – Present
Synchrony   *Champaign, IL*
- Developed Java Springboot application for automated data pipeline control actions with EIS App Scorecard team
- Worked on app health dashboard API to monitor latency and CPU/Memory usage for all internal company apps
- Built automated test suite for enterprise integration and database systems in SQL and Cassandra

Software Engineer   Sep. 2024 – Present
Disruption Lab at Gies   *Champaign, IL*
- Deployed full stack workflow management tool for Data Science Research Institute
- Built CSV to interactive graph visualizer using React and VueJS
- Managed graph data with NextJS API and Neo4j database

Undergraduate Researcher   Sep. 2024 – Present
Forward Data Lab   *Champaign, IL*
- Worked with Prof. Kevin Cheng on RAG models for query-based research summarization
- Built an automatic survey paper generation tool using Natural Language Processing and GPT Researcher API for bias reduction

Software Engineer   Sep. 2024 – Dec. 2025
Powerbox Technologies   *Champaign, IL*
- Modeled predicted power use in Latin America using an additive regression model
- Trained machine learning models on 200,000+ time series data using Google Cloud Platform and Prophet API
- Developed a cloud scheduler to regularly refresh client data using VertexAI

Teaching Assistant   Apr. 2024 – Present
Siebel School for Computer Science   *Champaign, IL*
- Assisted Prof. Nowak in developing course content for Intro to Computer Science II
- Hosted weekly office hours to help over 800+ enrolled students on 95+ weekly lesson topics
- Led multiple discussion sections per semester in lesson activities and guided students through readings

PROJECTS

AltCredit | *ReactJS, NextJS, NodeJS, Python, Pyspark, Typescript, Tailwind*   Feb. 2025
- Deployed a full stack web application for HackIllinois Capital One track
- Built and deployed backend api for parsing and data extraction from financial documents
- Trained random forest learning model on pyspark for determining alternative credit scores
- Developed interactive UI using ReactJS, Typescript, and Tailwind for users to determine loan eligibility

QuickThoughts | *ReactJS, NodeJS, ExpressJS, MongoDB, Mongoose, Javascript*   Nov. 2024
- Developed a social networking site with real-time messaging using MERN stack with a team of four
- Managed 100+ live messages and login data using MongoDB and Mongoose
- Linked data from React frontend to backend database with Node.js
- Build backend API with ExpressJS to route HTTP requests

TECHNICAL SKILLS

Languages: Python, C/C++, SQL (Postgres), JavaScript/Typescript, HTML/CSS, Verilog, ASM, Java, Kotlin
Frameworks: React, NodeJS, NextJS, ExpressJS, Flask, FastAPI, Postman, RESTful API, Neo4j, Java Springboot
Developer Tools: Google Cloud Platform, Git, Docker, AWS, MongoDB, Cloud Computing
Libraries: Pandas, NumPy, Matplotlib, Sympy, Scipy, Sklearn, Beautiful Soup, Prophet, Mongoose