Alex M. Borchers

Software Developer | Full-Stack Engineer
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Portfolio: https://alexborchers.vercel.app/

Education

Master of Science: Computer Science | University of Nebraska – Omaha
May 2023
- Summa Cum Laude, GPA: 4.0
- Specialized Emphasis in Software Engineering

Bachelor of Arts: Mathematics | Bachelor of Science: Business Administration | Morningside University
May 2020
- Summa Cum Laude, GPA: 3.90
- Minor in Computer Science
- Emphasis in Finance

Technical Skills

Core Technologies:
- Frontend: React (Vite), Typescript/JavaScript, HTML5, CSS, Tailwind, Bootstrap
- Backend: Node (Express), Supabase, Python, PHP
- Databases: SQL Server, MySQL, PostgreSQL
- Tools: Cursor, Vercel, V0, ChatGPT, Claude, Lucid, DBeaver, MySQL Workbench
- Other experience in: Java, C++, VBA, Overleaf, Flask

Other Tools & Platforms:
- Agile Methodologies
- API Integration (Google Suite, Claude, ChatGPT, Avalara, MondayDev, USPS, Custom - Viewpoint)
- Version Control (GitHub)
- Microsoft Excel

Professional Experience

Senior Software Developer | Pierson Wireless, Omaha, NE
June 2023-Present
- Founding Engineer for Pierson's company-wide estimation, inventory, logistics, and workflow automation platform used across quoting, procurement, warehouse operations, and fulfillment.
- Led end-to-end system design including data modeling, API architecture, authentication, document generation, and long-term maintainability for a growing internal product.
- Designed and executed a full MySQL → SQL Server migration, including schema redesign, indexing strategy, FK/UQ enforcement, performance tuning, and zero-loss data validation.
- Built a multi-stage agentic AI pipeline to automatically classify, extract, validate, and post data from inbound PDFs (POs & carrier shipment docs), materially reducing manual processing and error rates.
- Implemented real-time financial and operational sync with accounting and procurement systems, unifying quoting, inventory, and financial data into a single source of truth.
- Designed normalized warehouse and inventory models supporting material staging, allocation, job-level fulfillment tracking, and auditability.
- Delivered production systems in an Agile sprint environment, translating stakeholder needs into technical solutions and mentoring developers through complex architectural decisions.

Business Analyst | Pierson Wireless, Omaha, NE
June 2020-June 2023

- Converted excel financial summary tool to an online platform currently used widely by the company.
- Developed data-driven automation tools to increase departmental efficiency
- Analyzed quote data to calculate win rates across multiple business factors
- Maintained critical workflow management software

Research Experience

Thesis Equivalent Master Project | Dr. Harvey Siy, University of Nebraska - Omaha
August 2022-May 2023

- Conducted research to explore metamorphic, mutation, and differential testing for enhancing machine learning (ML) model robustness, specifically using Support Vector Machines (SVM) for image classification.
- Developed a no-code application for users to interactively train, test, and mutate ML models. It includes options to select metamorphic transformations, tune hyperparameters, and analyze post-training impacts using a ChatGPT API for hyperparameter mutation.
- Tests were conducted using image bitmaps, validated metamorphic relations, and GridSearchCV for hyperparameter optimization.
- Future research ideas are provided to test other ML algorithms (e.g., CNNs) and develop methods for analyzing complex hyperparameter sets, with a focus on scaling applications and improving test data coverage.

Research Assistant | Dr. Chris Spicer, Morningside University
January 2017-May 2018

- Recruited by a faculty member to assist with research, based upon strong academic performance, and leadership characteristics. Provided research on 2 topics.
- Performed research on continued fractions focused on finding trends in data to categorize sets of numbers using algorithms.
- Performed research on graph theory using the game “cops and robbers”. Analyzed research from previous students, developed & provided theorems for new sets of graphs.
- Presented to peers and faculty at the Palmer Research Symposium, Spring 2018.

Highlights & Achievements

- 5-year Collegiate Athlete with Academic All-Conference and All-American Honorable Mention Honors
- Summa Cum Laude in both Undergraduate and Graduate Studies
- Diverse Internship Experience: Avalon Capital Group, Northwestern Mutual, State Farm

Leadership & Community Involvement

- 3-Year Basketball Team Captain at Morningside
- Volunteer Work: Dream Center Mission Trip, Night to Shine, Community Service Projects
- Basketball Skills Trainer for Youth Athletes