Trevor Knutson

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Experience

North Dakota State University, *Fargo, ND - Web Application Developer*
May 2019 - May 2020, August 2020 - Present
- Built a microservice in **Java** to store documents on a remote drive
- Migrate 200 production applications from **Subversion** to **Bitbucket**
- Migrate **PHP** applications from **Oracle** to **MySQL** databases

Bushel, *Fargo, ND - Software Engineer Intern*
May 2020 - August 2020
- Built a full-stack application in **Laravel** and **React** to get familiar with the companies tech stack
- Implemented seeders that mock realistic data to assist quality assurance testers
- Worked closely with designers and the frontend team to implement a backend in **Kotlin** that served data according to requirements

Education

North Dakota State University, *Fargo, ND - Bachelor's of Science in Computer Science*
January 2018 - December 2020 (anticipated)
Computer Science Coursework
- Data Structures and Algorithms
- Modern Software Development
- Software Projects Capstone
- Principles of Software Engineering
- Software Projects Capstone
- Networking/Parallel Computation
- Operating System Concepts
- Principles of Cybersecurity
- Social Implications of Computers
- Database Systems
- Cyber-Physical System Autonomy
- Comparative Programming Language

Skills

Languages (Proficient)
- Java
- Kotlin
- Javascript
- Typescript
- PHP
- Python
- C++
- HTML
- CSS
- SQL

Frameworks and Technologies
- React
- Laravel
- Spring
- Angular
- Maven
- git
- Node.js
- npm
- Docker
- Unix / Linux

Projects

Software Projects Capstone: Audit Error Tracking System: (Python, Tkinter, MySQL) Collaborated with product owners and stakeholders to elicit requirements for a system to provide training insights to management. The system allows users to upload documents, visualize data, and refine search parameters to view specific data.

Data Structures and Algorithms: *Inventory Management System: (Java) Implemented an inventory management desktop application to be used by grocery store staff. The system allowed users to sort and search inventory by name or item code.*

Cyber-Physical System Autonomy: *Robot Course Navigation:* (Python) Programmed a robot to navigate a simulated course. The robot navigated completely autonomously using the A* pathfinding algorithm, sensors, and dead reckoning path following. Due to COVID-19 the course and the robot were fully simulated due to lack of hardware resources.