DANE WANKE

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Education

Bachelor of Computer Science   Finished courseload, graduating in 2024
University of Manitoba, **GPA of 4.28/4.5** in relevant courses:
- System Testing, Software Engineering, Distributed Systems, Networks, Advanced Algorithm Analysis and Data Structures, Human Computer Interfaces, Database Implementations, Server Management, Artificial Intelligence

Skills

Competencies: Resilience, Emotional Intelligence, Bilingual Communication, Organization, Thoroughness
Languages: Python, JavaScript, TypeScript, C++, C, C#, PHP, HTML, CSS, SQL, Java, Ruby, Go
Technologies: React, Next, Angular, Vue, SCSS, Node, Express, Flask, Rails, .NET, Spring, GraphQL, Apache, PostgreSQL, Redis, PLpgSQL, Linux, Docker, Kubernetes, GeoPandas, NoSQL, Photoshop, AWS, Azure, Jest, Nose2, Git

Professional Experience

Student Software Engineer – Canadian Grain Commission   2023
- Received a **standing ovation** for exceeding project expectations with nearly **100,000 lines of code,** responsible for:
  - A Linux-based Docker Swarm environment curated for big data
  - Multi-threaded ETL scripts for data collection, processing, and seamless future updates from diverse sources
  - Machine Learning model builder notebooks to facilitate predictions and feature importance analysis
  - Documentation that clearly explains and explores steps to follow, data, algorithms and decisions made
  - Map-based web interface built with React, D3 and Leaflet which dynamically displays samples, environmental factors, models, model characteristics and data visualization to characterize data and support further research
- Led weekly standups for sprint planning, peer review and team building in addition to biweekly progress meetings with government stakeholders using documents sent in advance to support discussions and decision making that set new standards for future teams
- Setup GitHub Actions for CI/CD pipelines, automating testing, type checking, and linting processes to enhance code quality and increase development efficiency

Software Engineer, IT and Receivables Lead – Westwood Dental   2018 – Present
- Designed and created software to accelerate, document and simplify data entry, claim requests, and processing
- Achieved consistent recognition as the **top performer** in receivables management
- Spearheaded hardware and procedural improvements that **accelerated the receivables process by 97%**, thus enabling successful collections from previously challenging accounts due to time constraints
- Elevated company visibility by collaborating with third-party vendors and implementing effective search engine optimization strategies, increasing online presence and patient acquisition
- Solely commanded the front desk during peak hours, maintaining a **flawless record with 0 patient complaints**

Projects

Door Unlocker – Embedded system that opens doors | TypeScript | SCSS | Angular | Express | Postgres| Docker | 2023
- Designed and developed a full-stack application with responsive frontend and advanced backend features, including Oauth authentication, authorization, session management, and logging, to ensure robust security
- Implemented a 3-layer architecture and utilized design patterns for structural enhancement
- Optimized system scalability through dynamically resizing database pools and efficient resource allocation
- Maximized concurrency by implementing an asynchronous promise-based producer-consumer task queue
- Successfully delivered the project from start to finish within a 7-day development period

M.O.B – Authentication using MapReduce and Eigenfaces | Python | Flask | React | Kubernetes | Google Cloud | 2023
- Collaboratively developed full stack biometric authentication system for Multi-factor Authentication
- Improved system scaling by partitioning data into multiple dedicated databases which **sped up requests by 50%**
- Devised a REST API in the back-end using Flask, providing efficient data access and management capabilities
- Created a user-friendly front-end using React and JavaScript that supports real time video and file uploads
- Successfully conducted cloud-based testing to ensure reliability and performance under high traffic conditions

Digi Menu – Experimental digital menu with comparing capabilities | JavaScript | React | 2022
- Proven successful in team-building, pair programming sessions, networking and building connections
- Iteratively prototyped a novel menu concept with an emphasis on user experience (UX) using MoSCoW prioritization, IDEO methodologies, user journeys story boarding, user feedback, heuristic and usability testing
- Focused on learnability, utility, and adaptability through thoughtful and highly configurable front end design

Grocery Bot – Automated price comparison web service | Vue | SCSS | JavaScript | PostgreSQL | Scrapy | Present
- Implemented a 3NF and BCNF normalized relational database to store metadata, store, and product data
- Applied OpenStreetMap's API with dynamic store markers to create an intuitive user interface for cost-effective shopping that factors in savings, quantities, product costs, store locations and defined shopping strategies based on the traveling salesman problem
- Formulated an API in the back end using Express that provides data access and management capabilities
- In progress: implementing generalized Scrapy bots to extract data from a variety of data sources

EaTEN – Android application for meal planning and calorie counting | Java | HSQL | Junit5 | Mockito | Expresso | 2022
- Collaborated as a team, following agile methodologies, short development and lifecycle management practices
- Wrote extensive **testing that nearly tripled production code with 100% coverage** in unit, integration, acceptance and usability testing that caught many bugs and prompted efficient object orientated code refactors during development

Handler – Enables gesture recognition allowing users to control computers with their hands | Python | 2023
Project Y – Wearable display shirt that lights up according to audio frequency | C++ | CMake | Catch2 | 2022
Console Chat – Creates and manages chat rooms using TCP/UDP sockets | Node | 2022

Other Work Experience

Software Developer, Piano Teacher and Accompanist – Self Employed   2012 - Present
- Achieved sustained growth solely through referrals and recommendations based on efforts and expertise
- Adoption of emotional intelligence, patience and energy to create conducive learning environments for students
- Regular engagement with clients to gage satisfaction and adjust services as per their needs which has resulted in overwhelmingly positive customer experiences

Bartender/Server – Santa Maria   2021
- Exceled in demanding 12+ hour shifts during COVID-19 under frequent short-staffing conditions
- Built rapport with customers, resulting in heightened customer satisfaction and increased customer loyalty
- Efficiently swapped between customer service, order recording, food preparation, bartending, serving, and support roles throughout shifts as needed for quick delivery and smooth operations in a fast-paced environment
- Accomplished a high rate of upselling, contributing significantly to increased sales and restaurant revenue

Host/Server – SMITH Restaurant   2019 – 2020
- Built rapport with customers, resulting in heightened customer satisfaction and increased customer loyalty
- Efficiently swapped between customer service, hosting, order recording, serving, room service delivery and support roles throughout shifts as needed for quick delivery and smooth operations in a fast-paced environment
- Accomplished a high rate of upselling, contributing significantly to increased sales and restaurant revenue

Host/Server – Rec Room   2019 – 2020
- Built rapport with customers, resulting in heightened customer satisfaction and increased customer loyalty
- Efficiently swapped between customer service, hosting, order recording, serving, floor operations and support roles throughout shifts as needed to ensure quick delivery and smooth operations in a fast-paced environment
- Accomplished a high rate of upselling, contributing significantly to increased sales and restaurant revenue

Probations STEP student – Government of Canada   2016 - 2017
- Submitted and amended court orders, client records and court documents in CCAIN and COMS systems
- Acted as front desk receptionist during public hours, taking phone inquiries, assisting the public as appropriate

Barista – Starbucks   2016 - 2017
- Built rapport with customers, resulting in heightened customer satisfaction and increased customer loyalty