Charlie Croix Tronrud

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EDUCATION

ST. THOMAS UNIVERSITY, St. Paul, MN - Computer Science and Statistics Major (Grad – May 2026)
- Member of St. Thomas University Computer Science, Wall Street and Lead Club.

PROJECTS

Predictive Analysis of Stroke Risk Using Machine Learning Techniques, **Data Mining and Machine Learning Model**
- **Conducted** an in depth analysis of stroke risk using data from 15,110 individuals focusing on health and lifestyle factors such as heart disease, hypertension, age, and BMI.
- **Utilized** advanced data analysis techniques including decision trees, regression trees, neural networks and clustering algorithms, employing tools like JMP and R to identify key predictors of stroke.
- **Developed**, validated, and fine tuned multiple models to pinpoint key risk factors, with results identifying heart disease, hypertension, and age as the most significant predictors of stroke.

AI-Powered Chatbot for Customer Support, **Leveraging Natural Language Processing (NLP)**
- **Developed** an AI chatbot that helps answer customer questions and provides support in real time, using Natural Language Processing (NLP) and machine learning.
- **Designed** the chatbot to understand and respond to different types of questions, using tools like Python's NLTK and TensorFlow for tasks like sentiment analysis and intent detection.
- **Trained** the chatbot with data from over 50,000 customer interactions, improving its accuracy and cutting customer service response times by 40%.

EXPERIENCE&ACHIEVEMENTS

Programming Instructor Intern, **TechTacToe / Minneapolis, MN**   **May 2024–Current**
- **Design** and implement lesson plans with hands on coding exercises and projects, covering essential programming techniques.
- **Guide** students through debugging, troubleshooting, and assessing progress, offering individualized support and mentorship.
- **Facilitate** group projects using industry standard tools, promoting teamwork, problem solving and simulating real world programming scenarios.

Football Operations Assistant Intern, **UNIVERSITY OF ST. THOMAS / St. Paul, MN**   **May 2024 – Current**
Football Video Coordinator   **December 2022 - Current**
- **Assist** with logistics and coordination of daily team operations, including practices and game day activities.
- **Work** directly with the head of IT while managing equipment and video technology, supporting game preparation, training sessions, and post game reviews.
- **Collaborate** with coaching staff to ensure effective video coordination for player development and performance analysis.
- **Facilitate** communication between coaches, players, and staff to enhance team efficiency and performance.

Automotive Detailing Team Lead, **OSCEOLA AUTO BODY / Osceola, WI**   **January 2021–Current**
Post Collision Crash Wrap and Sanitation Lead   **April 2018-August 2020**
- **Lead** team of 6 who ensures vehicles are restored to their pre-collision condition.
- **Detail** and finish interior and exterior of customer vehicles.
- **Identify** and complete specific areas needing additional attention or repair.
- **Conduct** final inspection of vehicle to exceed customer expectations.

SKILLS AND AREAS OF EXPERTISE

- **Programming Languages:** Java, Python, C, MATLAB
- **Software Development:** Git, Agile, CI/CD
- **Microsoft 365:** Excel, Word, Power Point
- **Data Science & ML:** Regression, Decision Trees, K-means, TensorFlow, NLTK
- **Cloud & DevOps:** AWS, Virtualization (VMWare)
- **Databases:** SQL, NoSQL, MySQL
- **Network & Security:** TCP/IP, HTTP, SSL, Cryptography
- **Tools:** IntelliJ IDEA, VS Code, PyCharm, Microsoft 365

VOLUNTEERING

Osceola Community's Annual Wheels and Wings Event, Osceola, WI   **September 2010 - September 2022**
- Assisted with setting up, taking down the fairgrounds, and providing information to visitors.