Dave P.

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Education

University of North Dakota — Grand Forks, ND
M.S. in Computer Science — *August 2024*
- Awarded the Eliot Glassheim Essay Scholarship and recognized as a 3MT (Three Minute Thesis) Finalist.

University of North Dakota — Grand Forks, ND
B.A. in Biology, Pre-health — *December 2021*

Technical Skills

Programming Languages: Python (2+ yrs), R (2+ yrs), JavaScript, C#, C++, SQL; proficient in algorithm development and full-stack application design.
Frameworks and Libraries: TensorFlow (2+ yrs), Docker (1+ yr), Plotly, Flask, React; skilled in machine learning, data visualization, and deployment.
Developer Tools: Git (3+ yrs), MySQL, Heroku, VS Code, PyCharm, Prism; experienced in version control, database management, and cloud deployment.
Data Visualization: Tableau; proficient in crafting interactive dashboards and visual analytics to interpret complex datasets.
Cybersecurity Tools: Next-Gen Firewalls, SIEM, IDS/IPS.
Security Concepts: Vulnerability Assessment & Management, Software-Defined Networking (SDN).
Other Skills: Full-Stack Development, Machine Learning, Data Mining, Agile, DevOps.

Experience

Graduate Research Assistant — January 2022 – August 2024
- Refined forecasting models for HAB toxicity, achieving a 98% accuracy improvement using VAR/VECM and ARIMAX on 10+ years of data.
- Co-authored a peer-reviewed paper in *Remote Sensing*, introducing innovative ML techniques for HAB prediction.
- Presented research findings at national conferences, fostering interdisciplinary collaborations and informing public health strategies.

Managing Associate - Investor Relations, Dakota Venture Group — September 2022 – February 2024
- Led the creation of Harvest II, a $5-10M impact investment fund for sustainable agriculture in underserved communities, securing $500K-$600K in soft commitments.
- Orchestrated pitching to high-net-worth individuals, effectively communicating the fund's mission and strategy, emphasizing educational and financial returns.
- Developed and maintained relationships with key stakeholders, enhancing investor engagement and retention by 20%.

Fullstack Engineer - Aethero.ai — August 2024 – Present
- Developed and maintained web applications using React and Node.js, enhancing user experience and functionality.
- Collaborated with cross-functional teams to design and implement new features, resulting in a 15% increase in user engagement.
- Implemented RESTful APIs and integrated third-party services to streamline data processing and improve application performance.
- Participated in code reviews, contributing to improved coding standards and best practices within the development team.

Projects

Thesis GUI Development | *Python, Plotly, Heroku* — August 2024
- Engineered a dashboard system to monitor HABs, processing and visualizing data from 5+ sensors, boosting data accuracy by 20%.
- Deployed the GUI on Heroku, ensuring 99.9% uptime and scalability for 1,000+ daily data points, enhancing data accessibility for the State EPA.
- Optimized data processing algorithms, reducing system latency by 15% and improving responsiveness.

Fire Alarm Interface System | *Java, HTML, CSS* — May 2023
- Spearheaded development of a web-based fire alarm system, decreasing response times by 30% via Java backend and HTML/CSS frontend integration.
- Led a team of 4 to deliver a fully functional system ahead of schedule, showcasing leadership and technical expertise.
- Implemented real-time monitoring features, enhancing system reliability and increasing user trust by 25%.

Blood Bank Database System | *MySQL, Java, HTML, CSS* — May 2023
- Designed a real-time database system for blood banks, improving data accessibility by 40% and enhancing user interaction with a responsive web interface.
- Directed the full SDLC, contributing 60% to front-end UI design and back-end data management, ensuring a seamless user experience.
- Automated data entry processes, reducing human error by 20% and increasing system efficiency.