Nigel Bess

Software | Mechanical Engineering | Machine Learning

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Objective

A passionate and innovative problem solver with a foundation in software and mechanical engineering and extensive experience in data analysis and machine learning. Seeking to leverage a robust technical skillset towards addressing impactful challenges and creating elegant, meaningful solutions.

Education

University of California, Santa Barbara - B.S. in Mechanical Engineering
- Capstone Project: Awarded Best Technical Project in Mechanical Engineering
- Junior Year Design Challenge: Awarded Best Technical

Technical Skills

Programming Languages: Python (Pandas, Scipy, Sklearn), SQL, C#, MATLAB, C++, HLSL, Java, Javascript
Frameworks: Pytorch, Tensorflow, Unity, Jupyter, Git
Technologies: Machine Learning, GPU Computing, Distributed Systems, UML, MVVM, CAD

Experience

Software Engineer: FLIR Systems, Inc   *November 2019 - August 2022*
- Architected and deployed innovative software systems for enhanced production, testing, data collection and analysis in the manufacturing process of thermal cameras.
- Spearheaded an initiative to optimize a critical production process, resulting in a 150% increase in throughput.
- Developed and implemented a state-of-the-art deep learning neural network, achieving a breakthrough in the automated detection of camera defects during the manufacturing phase.
- Designed intuitive user interfaces and conducted user feedback sessions, leading to significant improvements in customer satisfaction and user experience.
- Overhauled database architecture and optimized existing schemas, enabling more efficient management of production data and supporting scalability.

Lead Undergraduate Engineer: UCSB Neuroscience Research Institute *June 2019 - November 2019*
- Directed a team of 3 in the design of an automated system for training mice.
- Reduced mouse training times by as much as 80%, leading to significant cost savings for the research lab.
- Contributed to a 600% increase in research capacity through automated mouse training protocols.

Research Assistant: UCSB Neuroscience Research Institute   *September 2018 - June 2019*
- Innovated hardware, software, and circuit boards for an automated rig for training mice to play video games.
- Pioneered the development of a custom game engine framework to streamline further development.
- Spearheaded an initiative to thoroughly document all existing and new software and mechanical systems.

Video Game Developer: UCSB Anthropology Department   *June 2018 - December 2018*
- Designed and created innovative video games for use in anthropology research.
- Created relational data storage system to streamline data retrieval and visualization for researchers.
- Sole developer of a complete game development pipeline, from design to implementation.

Additional Information

Planned Career Break, August 2022 - April 2024*: Traveled Asia, Europe, and Africa
Languages: Proficient in German, Spanish, French