Benjamin David Roberson

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EDUCATION

University of Tennessee, Knoxville

Master of Science in Computer Science **Aug 2019 – Aug 2023**
Machine Learning concentration | GPA: 3.42

Bachelor of Science in Computer Science **Aug 2013 – Dec 2018**
Minor in Physics | GPA: 3.17

SKILLS

Software
- C/C++: STL, Data structures & Algorithms, Multi-threading, System calls
- C#: .NET Framework, Visual Studio, HTTP methods, LINQ
- Python: Libraries and data types, Scripting, Machine learning
- Java: GUIs, Model-view-controller design
- Miscellaneous: Command utilities/ Bash, Linux, Git, Agile methodology, Unit testing

Web Development
- Front end: Angular Framework, JavaScript, DOM manipulation, Ajax, JQuery, HTML, CSS
- Back end: C#, PHP, SQL/MySQL, Get and post requests, Database interaction
- Sysadmin: Apache, HTTP server configuration, .htaccess, SSL certificates

Machine Learning / Data Science
- Data cleaning: Pruning, Dimensionality reduction, PCA
- ML Models: Neural networks, SVM, Decision tree, Clustering, Convolutional networks, Autoencoders
- Probability: Bayesian methods, Random variables

Physics & Mathematics
- Physics: Astronomy, Modern physics, Nuclear, Electricity & Magnetism, Scientific computing
- Mathematics: Linear algebra, Differential equations, Discrete math, Calculus, Numerical analysis

WORK EXPERIENCE

Siemens Healthineers: Full Stack Web Developer **Jun 2022 – Current**
- Fully reworked a deprecated C# library to use a REST API
- Restructured an Angular application from proprietary to open-source components

UTK Office of Information Technology: Systems Administrator **Jan 2020 – Dec 2020**
- Maintained, updated, and installed public Red Hat Linux servers for OIT

Research Assistant: Magnetic Fields physics Simulation **Feb 2015 – Feb 2016**
- Simulated current-carrying wires around a pipe to generate a uniform magnetic field

NIMBioS Summer Research: Software development **Jun 2014 – Aug 2014**
- Developed an interactive program for a psychological study

CAMPUS INVOLVEMENT

IEEE Robotics – Robot competition member | Circuits, Arduinos, Raspberry Pi
HackUTK – Cybersecurity organization
Society of Physics Students – Undergraduate physics organization

AWARDS

VolHacks – UT hosted hackathon event | 2019 “Most Innovative” prize winning project
- Solved the game “Flappy Bird” using a reinforcement learning-based AI

Eagle Scout Award
UTK Chancellor’s Honors program
Hope scholarship with merit supplement and UTK Engineering scholarships