



# GARRETT CRUMRINE

## MACHINE LEARNING ENGINEER

Extremely passionate and motivated individual. Eager to leverage my experience with Distributed Systems, High Performance Computing, Artificial Intelligence, and Machine Learning to create value and drive success, growth, and efficiency.

Husband, Father, Eagle Scout. As a leader I understand the value of what is important. I am excited by the idea of optimizing solutions to the challenging problems that all organizations face.

## EMPLOYMENT HISTORY

### MACHINE LEARNING HPC SPECIALIST

Texas A&M University-San Antonio at San Antonio,  
Remote

Apr 2022- Present

- Contribute to High Performance Research Computing Center, enhancing research capabilities and collaboration.
- Design, build, maintain, and optimize applications, containers, and environments across a multi-GPU, multi-node, HPC cluster; enabling research faculty from multiple disciplines to complete cutting edge research in their field.
- Conduct end-to-end research in Machine Learning and Deep Learning, advancing natural language processing techniques.
- Assist with grant research, proposals and writing with personal contributions that lead to NSF funding for innovative projects.
- Coordinate daily/weekly tasks within HPC-team, ensuring efficient project management and execution.
- Lead the development of scalable web portals, enhancing user experience and accessibility for the CAMSA HPC cluster.

### JOURNEYMAN PLUMBER

Superior Plumbing at San Antonio

Jan 2019 - Dec 2020

- Led troubleshooting and resolution of plumbing issues, enhancing client satisfaction and reducing downtime.
- Directed installation teams, ensuring adherence to safety protocols keeping the company incident free.
- Worked with architects and engineers to integrate plumbing systems seamlessly into building designs.



210-844-7456



crumrine.garrett@gmail.com



Boerne, Texas, United States

## SKILLS

- AI, ML, and Deep-learning w/ PyTorch, TensorFlow, Huggingface, and sklearn
- LLM, NLP, GAN, Image Classification, CNN,
- SLURM, Containers, OpenMP, Parallel Programming, Performance Optimization
- Data curation and analysis
- Bash and Linux
- Python, C++, Java,
- Grant Writing
- Project Management, Team Leadership
- Written and Verbal Communication

## EDUCATION

### BS, COMPUTER SCIENCE, MAGNA CUM LAUDE

Texas A&M University-San Antonio  
Aug 2022 - Dec 2024

### AS, COMPUTER SCIENCE

San Antonio College  
Aug 2020 - Aug 2022



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## EMPLOYMENT HISTORY



### RESIDENTIAL CARE SPECIALIST

Pathways Youth & Family Services at Mountain Home

Mar 2017 - Jan 2019

- Supported youth in CPS care at a residential treatment facility, ensuring safety and daily needs. Assisted in treating residents with trauma, abuse, and neglect histories, providing essential care. Supervised residents, ensuring adherence to action plans.
- Planned and executed daily activities, teaching life skills aligned with program goals. Documented behavioral health observations, contributing to measurable improvements in resident well-being.
- Provide compassionate care and support to at-risk youth, fostering a safe and nurturing environment to promote emotional and social development.
- Coordinated with multidisciplinary teams to create individualized treatment plans, enhancing resident outcomes.

## EDUCATION AND CERTIFICATION



### BACHELORS OF SCIENCE, COMPUTER SCIENCE

Texas A&M University-San Antonio

Aug 2022 - Dec 2024

- Graduated Magna Cum Laude- Major GPA: 3.75
- Accepted Tau Sigma Honor Society membership nomination
- Accepted National Society of Leadership and Success nomination
- Deans List
- Outstanding Senior nomination



### ASSOCIATE OF SCIENCE, COMPUTER SCIENCE

San Antonio College

Aug 2020 - Aug 2022

- Graduated and Transferred to Four-year University



### CERTIFICATION AND TRAINING

- National Security Agency (NSA)-Cyber Security Specialist Certification
- JAG-AI-Foundations of AI in Research Certification
- HPC-Artificial Intelligence Certification
- Nvidia Developer
- AWS Training
- Google Cloud Platform Training



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Aug 2022 - Dec 2024

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San Antonio College  
Aug 2020 - Aug 2022

## EDUCATION AND CERTIFICATION



### **ACTIVE RESEARCH. PUBLICATIONS AND NOTABLE COURSEWORK**

#### Current Topics of Research

- Published Papers
  - Transforming Computer Security and Public Trust Through the Exploration of Fine-Tuning Large Language Models. 2024 4th Intelligent Cybersecurity Conference (ICSC), Valencia, Spain, 2024, pp. 39-47, doi: 10.1109/ICSC63108.2024.10895437.
  - AlexNet and Convolutional Neural Network Analysis in Thermogram Images for Automobile Application Using High Performance Computing, 2024 International Symposium on Networks, Computers and Communications (ISNCC), Washington DC, DC, USA, 2024, pp. 1-8, doi: 10.1109/ISNCC62547.2024.10759037.
  - Probabilistic Embedding for Enhancing Medical Imaging Model Trustworthiness Through Calibration via Gaussian Distribution. in IEEE Pulse, vol. 16, no. 1, pp. 26-28, Jan.-Feb. 2025, doi: 10.1109/MPULS.2025.3526485
- Topics of Interest and Current Projects
  - Ethical considerations for Machine Learning, Artificial Intelligence, and High Performance Computing.
  - NLP, LLM, Image Classification, Data Analysis, HPC, Containers, Cyber Security, Biomedical Imaging, Predictive Modeling
- Contributions to awarded Grants
  - Facilitated a state of constant contact with NSF OAC Managing Program Officer while working directly under Principal Investigator for the OAC CC\* Strategy-Campus: Accelerating Research Computing at Texas A&M San Antonio (ARCATS)-New Project and Supplement for Grant Award Number: 2430335.

#### Notable Courses (4.0 GPA)

- Jan 2024 - Apr 2024
  - Senior Seminar(A), Software Engineering II(A), Computer Architecture(A), Operating Systems(A)
- Aug 2023 - Dec 2023
  - Cyber Security(A), Software Engineering I(A), Computer Networks(A), Discrete Computing(A), Computer Organization(A)
- Jun 2023 - Aug 2023
  - Artificial Intelligence(A), Web Application Development(A)