

Anthony S Bird

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EXPERIENCE

Researcher

Aug. 2021 – Present

Appalachian State University

Boone, NC

- Through creating interpretable convolutional neural networks we use an autoencoder structure to convert current architectural designs into modular designs in order to **drastically reduce labor and design costs**.

Research Assistant

Sep. 2019 – May 2021

Appalachian State University

Boone, NC

- Through optimizing classification results on a minimal data-set, **achieved an accuracy of 91% compared to the previous 70%**. This was achieved through bootstrapping, image generation, and data augmentation.

University Tutor

Jan. 2020 – May 2021

Appalachian State University

Boone, NC

- Tutored fellow students in **computer science, advanced mathematics, and introductory logic**.
- Co-led a drop-in computer science seminar 3 times a week.
- Refined knowledge in computer science and math through repeated tutoring and assisting.

EDUCATION

Appalachian State University

Expected December 2022

Master of Computer Science (Concentration in Theoretics) GPA: 3.87

Boone, NC

- **Coursework:** Data Structures, Algorithms, Databases, Computer Systems, Operating Systems, Machine Learning, Theoretical Computer Science

Appalachian State University

Graduated May 2021

Bachelor of Science in Mathematics

Boone, NC

- **Coursework:** Proofs, Real Analysis, Modern Algebra, Abstract Algebra, Combinatorics, Cryptography and Coding Theory

Appalachian State University

Graduated May 2021

Bachelor of Science in Computer Science

Boone, NC

PROJECTS

Real-time Rich Closed Captioning

- A python based project that creates hypertext rich captions for video and audio.
- Able to recognize the most relevant words in a sentence through analysis of n-gram frequency.
- Able to define important words to the user in order to make sure they understand the subjects of conversation in real time.
- Uses hyper-text references to link to a page containing more information on important words.
- Used to caption a live Zoom session class for future archival in Spring of 2021.

SKILLS

Languages : Python, Java, C/C++, x86 Assembly, HTML/CSS, SQL, Matlab

Tools : Google Analytics, Git/GitHub, Scrum, Agile, XP, Tensorflow, Keras, PyTorch, NLTK, Scikit-learn, Matplotlib, Tableau