

Adam Maciaszek

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TECHNICAL SKILLS

- Coding - Python, R, Pandas, MATLAB, Java, Bash/Shell Scripting, LaTeX
- Software & Development Tools – ArcGIS Pro, ArcGIS Online, GitHub, Linux, Excel & Microsoft Office Suite, Adobe Suite

EDUCATION

- May 2024 **University of Massachusetts Amherst: *Masters in Data Analytics***
- **GPA: 3.8 Relevant Coursework:** Machine Learning for Data Analytics, Text as Data, Network Analytics, Research Design, Python for ArcGIS, Advanced Computational Statistics, Social Media Analysis, Data Visualization
- May 2021 **University of Massachusetts Amherst: *B.S. Computer Engineering***
- **GPA: 3.4 Relevant Coursework:** Machine Learning, Computer Architecture, Signal Processing Methods, Continuous-Time Signals and Systems, Security Engineering, Systems Software & Networking, Information Technology

PROJECTS

LIGHT POLLUTION SIMULATOR

- Developed a Light Pollution Simulator website with ArcGIS maps and R Shiny, mapping and categorizing light pollution levels by Bortle factors and enabling users to identify any location's level
- Incorporated nine synchronized interactive star charts for each level within Leaflet maps for detailed star observation, accessible [here](#)

Senior Capstone Project: Shiver-Ring

- Engineered and prototyped a wrist-mounted flexible PCB device, detecting physiological signs of shivering to audibly alert users during hypoglycemic events; collaborated cross-functionally to execute remotely, ensuring seamless integration and functionality.
- Executed data sampling and analysis using FFTs and autocorrelation to detect shivering movements within the 8-12Hz range, triggering emergency alerts to family members or 911

Ai Restoration Portfolio- [Adam Mac](#)

- Created a dedicated channel focusing on the restoration and preservation of vintage animation. Utilized convolutional neural networks to enhance video quality by deinterlacing, upscaling, de-graining, and scratch removal
- Explored and demonstrated the conversion of early 20th-century stereoscopic 3D videos into modern virtual reality formats, preserving and revitalizing historical visual content

PROFESSIONAL EXPERIENCE

- **Computer & Technology Teacher / IT Administrator**
 - Aug 2023 – Present, *Saint Stanislaus School, Chicopee, MA*
 - Instruct students from K-8 in essential computing skills, covering topics digital literacy, Excel data analysis and Python programming..
 - Teach advanced technical concepts, including data visualization, photo and video editing, and CAD with 3D printing.
 - Guide students through hardware integration projects, introducing microcontrollers, robotics, and electronic circuit design.
 - Manage school-wide IT operations, including server maintenance, troubleshooting hardware/software issues, and optimizing network performance.
 - Implement educational technology solutions to enhance student engagement and support curriculum goals.
- **Billing Specialist / Technician**
 - May 2020 – Sept 2023, *MyEyeDoctor, Westfield, MA*
 - Managed medical billing processes and maintained comprehensive patient history documentation
 - Conducted diagnostic testing, including autorefraction and fundus photography on patients
- **AI Restoration Artist, Crows are White**
 - Jan 2022 - Apr 2022, *Freelance Work for director Ahsen Nadeem*
 - Restored animation on archival footage using a deep convolutional neural network (CNN).
 - Trained models to recognize specific film degradation, using machine learning to improve accuracy of restoration processes
 - Upscaled footage to remove grain and scratches, enhancing visual quality by employing advanced image processing algorithms. Manually edited errors, including scenes filmed for the documentary
- **AI Animation Restoration Artist**
 - Jun 2021 - Dec 2021, *Freelance for Director Matt Hartley*
 - Served as the sole restorationist for a fully animated feature using public domain animation
 - Coordinated with the animation team to overlay modern flash animation techniques
- **Data Archiver**
 - Sept 2013 - Feb 2018, *Polish Center of Discovery and Learning, Chicopee, MA*
 - Transferred data from paper documents and vinyl recordings to digital formats
 - Implemented an online database for archival access, improving the accessibility of historical records and enhancing research capabilities for scholars and the public.
 - Converted 78rpm records dating from 1900 to 1950 into digital format, resulting in over 1100 songs
 - Custom designed exhibits, including an interactive display that modified an antique radio for museum guests to request songs
- **Research Assistant**
 - May 2016 - Sep 2016, *Siena College, Loudonville, NY*
 - Conducted computer science virology research, programming simulations of viral capsid structures using the Monte Carlo method
 - Analyzed the geometric viability and thermodynamic stability of synthesized viral capsids