Markian V. Hromiak

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EDUCATION

Georgia Institute of Technology, Atlanta, GA
 • Bachelor of Science in Computer Science   December 2020
                                                                                                  Cumulative Major GPA 3.50

PROJECTS

Live Face Blurring   **December 2020**
 • Utilized the OpenCV library to create a face blurring application compatible with live video, recordings and images
 • Contrasted the efficacy and suitability of HOGs, Haas cascades, DNNs and MTCNNs for live computer vision

Wasteland Sorting Algorithm   **August 2019 – September 2020**
 • Drafted and tested an original sorting algorithm against standard sorts, showing superior runtime for large data
 • Documented complexity analysis and design procedure using git version control
 • Maintainer for an open-source package on PyPI

DrivingForce App   **January 2018, March 2020**
 • Designed a hackathon web app to host volunteer organization work opportunities
 • Created HTML/CSS interface with Angular5 linked to a Google Firebase database
 • Reworked application in Angular9, improving functionality and UI/UX following Evolutionary Prototyping

WORK EXPERIENCE

TITANS Software Engineering Intern – Sandia National Laboratories   **May 2020 – August 2020**
 • Designed an application-layer noisy channel module to empirically compare forward error correction implementations
 • Constructed a pipeline algorithm for reliable file transfer over an unreliable simplex channel
 • Optimized algorithm performance through test-driven development and memory profiling

Teaching Assistant – Georgia Institute of Technology   **August 2019 – December 2019**
 • Educated students on object-centered software design principles and version control
 • Guided students through application construction following GRASP and SOLID principles
 • Taught a seminar on RESTful APIs, HTTP/web service applications and software design principles

Software Engineering Intern – Edward Jones   **May 2019 – August 2019**
 • Constructed RESTful, front-end API microservices for an AGILE, multi-platform UI enterprise application
 • Collaborated in daily scrum meetings and AGILE training/research to aid in a firm-wide Waterfall-to-AGILE
   Transition
 • Fully integrated features through Jenkins and Kubernetes

PUBLICATIONS

A New Charter of Ethics and Rights of Artificial Consciousness in a Human World
 • Published as arXiv:2010.12019 on arXiv. Primary author, 8/12/2020

SKILLS

Computer Languages and Libraries:
 • Proficient in Python, C/C++, Java, Bash
 • Experience with SQL, Angular9, Python Flask, Springboot, Rust

Software and IDEs Used:
 • Eclipse, Android Studio, IntelliJ, Spyder, LaTeX, VSCode

RELEVANT COURSEWORK

 • Intro to AI, Design & Analysis of Algorithms, Software Engineering, Operating Systems,
   Robotics & Path Planning, Processor Design, Automata and Complexity

AWARDS AND HONORS

 • GT Eta Kappa Nu IEEE Honor Society member   • Georgia Tech Inventure Prize Competition Semi-Finalist
 • GT 'Make a Difference' Hackathon 2018 – Runner-up • University Physics Competition – silver, bronze medals
 • Georgia Tech Provost Scholar