Andy Gnias

https://www.andygnias.com/

PROFILE

Software engineer with 6+ years of experience. Knowledge of multiple languages and frameworks, with a strong ability to think Pythonically. Skilled in automating CI/CD pipelines for various tech stacks. Passionate about code coverage and extensive documentation when developing new code.

EDUCATION

Graduate Certificate in Computer Science, May 2023 (Expected)
Temple University, Philadelphia, PA
GPA: 3.75

B.S. in Mechanical Engineering, June 2016
Drexel University, Philadelphia, PA
GPA: 3.86

COURSES

Graduate Courses: Data Mining, Data Structures and Algorithms, Operating Systems
Undergraduate Courses: Programming I and II (OOP in C++), Advanced Programming Techniques, Data Structures and Algorithms, Control Systems, Finite Element Methods, Computer Aided Design, Fluid Dynamics, Materials, Thermodynamics

CERTIFICATIONS

- CompTIA Security+ SY0-601 (January 2022)
- Machine Learning (Coursera, Stanford Online, May 2020)
- Reinforcement Learning Specialization (Coursera, University of Alberta, Feb 2020)

SOFTWARE

Languages
- Python, Java, C++, JavaScript (Node.js), Rust, Bash, Perl, MATLAB

Cloud Development Tools
- AWS, Docker, Kubernetes

Testing Tools and Frameworks
- Selenium, Cucumber, pytest, tox, JUnit, Mockito, GoogleTest

CI / CD
- GitLab, Jenkins, Microsoft TFS (now Azure DevOps Server)

Engineering Tools
- ANSYS, Creo, MakerBot 3D Printing, Minitab, LabVIEW, LaTeX

GRADUATE RESEARCH

Center for Data Analytics and Biomedical Informatics at Temple University | Philadelphia, PA

Social Media Bias Identification June 2022 - Present

- Parse data from articles, Tweets, and Reddit posts related to the Russo-Ukranian War
- Mine novel data from Reddit related to the Russo-Ukranian War
- Categorize data as either strictly pertaining to Russia or Ukraine
- Perform Sentiment Analysis on the data collected

Hypertension Detection August 2022 - Present

- Developed a PyTorch model based on the ResNeXt neural network for classifying retinal images for various indicators of Hypertension
- Created a hyperparameter tuning script utilizing Optuna for determining ideal CNN, optimizer, and hyperparameters
- Performed color normalization methods on images from various sources to ensure consistency across the dataset

WORK

Arcadia | Washington, D.C. (Remote)
Software Engineer II - Data Utility Team April 2022 - Present

- Create and debug scrapers for parsing consumer utility data
- Lead design efforts for secure storage and efficient access of user credential data
- Developed new unit tests using various mocking libraries, increasing coverage by over 10%
- Refactor existing Python code to follow best practices and improve maintainability

The Stratagem Group | King of Prussia, PA
Software Engineer Senior - Cloud Development Program September 2021 - April 2022

- Designed and implemented a backend REST API query service using Spring Boot
- Determined query syntax and rules to allow the service to search reports stored in Elasticsearch
- Implemented unit tests using JUnit and Mockito
- Analyzed existing projects for reusability on new program tasks

Software Engineer Senior - App Framework & Infrastructure Program Sept 2020 - Oct 2021

- Defined and implemented a program-wide DevSecOps pipeline that could build, test, scan, and package C++, Java, and Python applications through GitLab CI/CD
- Developed libraries in C++, Java, and Python to simplify API calls to a customer SDK
- Fixed library linking issues that occured when compiling C++ code using Autotools
- Found and resolved bugs by deploying and testing applications in an OpenShift pipeline
- Served as scrum master for an agile development team of up to 15 engineers

Software Engineer Senior - Automated Testing Program August 2019 - December 2020

- Created an AWS Lambda Python application to export / import TestRail project data
- Developed automated UI tests using Cucumber.js and Selenium to simulate user actions for over 40 different test scenarios
- Created Python, Java, and Node.js automated test pipeline templates in Jenkins
- Presented and demonstrated custom software tools at conferences to stakeholders

Software Engineer Senior - Machine Learning Program March - October 2020

- Created and improved functions for reading and classifying incoming data from an Apache Kafka broker
- Evaluated datasets to determine useful attributes for accurate classification
- Hardened docker-compose development network to enhance functionality and stability
- Developed methods for hyperparameter optimization utilizing Optuna

Co-op Program Recruitment Lead March 2020 - April 2022

- Lead the process of recruiting and hiring students from the Drexel University Co-op program for various roles throughout the company

Lockheed Martin, Space Systems Company | King of Prussia, PA
Software Engineer April 2018 - August 2019
Associate Software Engineer September 2016 - April 2018

- Automated software installation and server configuration tasks
- Supported weekly deployments to a factory level test environment
- Maintained software archives on an air-gapped system in Sonatype Nexus by developing RESTful API modules
- Developed and improved End-to-end tests using Selenium and C#

University City Science Center | Philadelphia, PA
Technical Investment Analyst September 2014 - March 2015

- Collaborated with local institutions to transition biomedical research into marketable products
- Prepared and submitted grant applications through the National Institute of Health (NIH) and Small Business Innovation Research (SBIR) programs

Essential Medical | Malvern, PA
Product Development Co-op September 2013 - March 2014

- Built and tested 500+ vascular closure devices for sealing capability and functionality
- Wrote documentation, including Assembly Instructions and a Verification Test Plan
- Conducted product experiments in an in vitro model and assisted in an in vivo study

LAB / PROJECT EXPERIENCE

Optical Diagnostics Lab, Drexel University | Philadelphia, PA
Hess Undergraduate Research Scholar June 2015 - March 2016

- Wrote a Python script to monitor vibration on lab equipment using an accelerometer connected to a Raspberry Pi
- Designed circuit board to read data from accelerometer and temperature monitor

Senior Design, Drexel University and Children's Hospital of Philadelphia | Philadelphia, PA
Senior Design Team Member September 2015 - June 2016

- Optimized a laryngoscope blade to improve the success rate of pediatric intubationutility data scrapers written in Python
- Developed and read input from sensors to detect pressure points on device
- Analyzed MRI scans of pediatric airway anatomy to determine optimal device curvature

Engineering Spring in Bochum, Ruhr-Universität | Bochum, DE
Lab Assistant April - June 2014

- Assisted a PhD candidate in performing research on Phase Change Slurries (PCS)