Michael Haowen Prince

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EDUCATION

Auburn University – Auburn, Alabama
Master of Science - Computer Science (Expected May 2022)
Bachelor of Software Engineering (May 2020)

EXPERIENCE

Auburn University – Auburn, Alabama
Graduate Research Assistant (August 2020 – Present)
Undergraduate Research Assistant (February 2020 – August 2020)
- Research into applying evolutionary algorithms and reinforcement learning to sensitive manufacturing processes.
- Project conducted at the Biomimetic National Security Artificial Intelligence Lab (BONSAI) under the supervision of Dr. Daniel Tauritz.

Flight Software Engineer (January 2020 – March 2020)
- Advised and assisted the development of AEGIS flight software.
- AEGIS is a lunar, scientific cubesat expected to launch on Artemis II.

Command Alkon – Birmingham, Alabama
Co-Op SDET (January 2019 – August 2019)
- Developed distribution infrastructure and Jira plugins for an automated testing framework.
- Created a NLP test analysis tool to evaluate test overlap using latent dirichlet allocation and random forest.

Co-Op Software Developer (May 2018 – August 2018)
- Implemented new features and solved issues with the COMMANDqc team.
- Built a DDT framework to extensively test a critical application component.

Co-Op SDET (August 2017 – December 2017)
- Developed and maintained tests and testing infrastructure for an automated testing framework.
- Constructed an application to store, filter, and analyze internal test cases.

Alabama Cooperative Extension System and The College of Agriculture – Auburn, Alabama
Student Information Technology Consultant – Part-time and Full-Time (January 2016 – August 2017)
- Answered calls and provided support for various technology related problems.
- Resolved internet outages by contacting ISP's and guiding employees over the phone.

SKILLS

Operating Systems: Windows, Linux
Office Tools: Microsoft Office, Google Drive, MS Virtual Machine Manager, Jira, Confluence
Programming Languages: Python, Javascript, C#, Java, SQL, Object Pascal, C
Development Tools: TestComplete, RAD Studio, SSMS (SQL), Eclipse, Visual Studio Code, Chef, Unity
Notable Libraries: Pytorch, Numpy, Scipy, MLflow, Optuna, Jupyter Notebook, Pandas, Matplotlib, Anaconda, NLTK, Sklearn, Gensim, Openpyxl, OpenXML, Java Swing, FPrime, Unity ML Agents, Stable Baselines
Version Control: Git, Team Foundation Server, Bitbucket, Sourcetree, Github

PROJECTS

- **Github:** https://github.com/Linked-Liszt - Source code for a variety of projects.
- **Senior Design: AEGIS Satellite Flight Software** *(Team Lead):* Designed and built flight software, using FPrime, for the AEGIS lunar satellite. Represented the software team in design reviews.

PUBLICATIONS

- Michael H. Prince, Kristiian DeHaan, and Daniel R. Tauritz. "EDM-DRL: Toward Stable Reinforcement Learning Through Ensembled Directed Mutation." EvoApplications. 2021.
- Michael H. Prince, Andrew J. McGehee, and Daniel R. Tauritz. "A Multi-Objective Evolutionary Algorithm Approach for Optimizing Part Quality Aware Assembly Job Shop Scheduling Problems." EvoApplications. 2021.