Willem Mirkovich

willemmirkovich@gmail.com
https://www.linkedin.com/in/willem-mirkovich-48a417153
https://github.com/willemmirkovich
303-885-9685

EDUCATION

University of Colorado, Boulder, CO
Bachelor of Science, Computer Science, GPA: 3.9 — 2018 - May 2020

University of Washington, Seattle, WA
Pre Engineering, Computer Science and Math, GPA: 3.7 — 2016-2018

AWARDS

Graduated Magna Cum Laude, University of Colorado Boulder — May 2020

Dean's List, University of Colorado Boulder — 2018-2020

Engineering Transfer Scholarship, University of Colorado Boulder — 2018

Dean's List, University of Washington — 2016-2018

EXPERIENCE

Full Stack Software Engineer Level 2 — December 2020 - Current
Anark Corporation — *2970 Wilderness Place Suite 110, Boulder*
Part of Full Stack Development team full time, primarily working data integration/visualization on publishing team.

Full Stack Software Engineer Level 1 — June 2020 - November 2020
Anark Corporation — *2970 Wilderness Place Suite 110, Boulder*
Part of Full Stack Development team full time.

- Designed and Developed multiple tools for Content Viewing with TypeScript
- Built test suite using Jest-Puppeteer to quickly test data API visualization and functionality
- Revamped distribution of our API from local file transfer to private NPM registry

Professional Research Assistant — July 2020 - Current
University of Colorado Boulder — *3775 Discovery Drive, Boulder, CO*
Apart of AMGeO Organization, headed by Tomoko Matsuo

- Continued work on spatiotemporal prediction of atmospheric states using Convolutional Neural Networks
- Presented work done so far at AGU 2020, My Poster
- Added sophisticated logging to microservice architecture for robust debugging and digest able anonymous user data
- Constructed additional microservice API for retrieving data from AMPERE to be included with AMGeO data assimilation

Full Stack Software Engineer Intern — November 2018 - May 2020
Anark Corporation — *2970 Wilderness Place Suite 110, Boulder*
Part of Full Stack Development team during school year part-time.

- Created Node.js server with Puppeteer to automate testing of webpage images
- Revamped TypeScript Testing framework from embedded JavaScript to native TypeScript tests using Jasmine
- Created SDK package of TypeScript Declaration files to allow for TypeScript API development
- Developed on .NET platform using Test-Driven Development

Undergraduate Research Assistant/Developer August 2019 - May 2020
University of Colorado Boulder *3775 Discovery Drive, Boulder, CO*
Working with Professor Tomoko from CU Aerospace Engineering on AMGeO project.

- Began work on expanding AMGeO with state evolution model to predict future states in the atmosphere using machine learning
- Added security features to website using JSON Web Tokens
- Automated user integration with Github project using Github API
- Developed using Flask microframework and Python

Software Developer Jan 2020 - May 2020
University of Colorado Boulder *CU Boulder, CO*
Hired as software developer for the project Numberscope to help build, test and deploy website/tool for visualizing number sequences from the OEIS database.

Teaching Assistant Jan 2019-May 2019, Aug 2019-Dec 2019
University of Colorado Boulder *CU Boulder, CO*
Lead weekly outside work group for Discrete Structures Computer Science/Math course at CU Boulder as an undergraduate. Held weekly office hours for students.

Research Assistant February 2018-August 2018
University of Washington *UW Seattle, WA*
Hired as Research Assistant within team of undergraduates aiding Professor Pahnke (UW Foster School of Business). Research focused on openFDA analysis to record competitive relationships in medical device industry. Worked as Technical Lead of group.

PROJECTS

AMGeO: *August 2019-Current*
Current version of AMGeO: https://amgeo.colorado.edu/
AMGeO is a data science software project funded by the NSF EarthCube program aiming to open up the vast amount of geospace data to a broader audience, while also giving users an access to data analysis tools that help gain meaningful insights. I am participating in the AMGeO project by helping with the release of the open source software and webservice as well as expanding on the core functionality of data analysis tools provided as part of the open source software.

Senior Thesis: *August 2019 - May 2020*
Completed a Senior Thesis Capstone. Research focused on work in pruning the search space of repeated iterations of similar problems to reduce computation time. Applications in Linear Programming, String Search and Shortest-Path Algorithms.

Designing for Defense: *January 2019 - May 2019*
Technical Lead and Main Presenter in team of undergraduate/graduate students to find solution posed by US Air Force Special Forces using Lean Launchpad methodology. Designed application to evaluate candidate stress. Presented final pitch to group of DOD affiliates and members numbering around 300 people.

COMPUTER SKILLS

Languages: Java, Python, TypeScript, JavaScript, SQL, C#, C, BASH, LaTeX.
Web Development: Flask (Python), Node.js, CSS, HTML, Express
Development Tools: Jest, NPM, Jasmine, Webpack, Google Closure Compiler, Typescript Compiler, Tensorflow
Applications/OS: JupyterNotebook, Visual Studio, Azure, VMWare, Linux, MacOS, Windows, Visual Studio Code, JetBrains

RELEVANT COURSEWORK

Data Science, Machine Learning, Algorithms, Matrix Algebra w/ applications, Discrete Mathematics, Differential Equations, Database Systems, Calculus 1-3, Data Structures