Michael Nowak

mcnowak.io
github.com/mcnnowak mcnnowak@gmail.com

Experience

- **Intel** Folsom, CA
  Full-stack Software Engineer *July 2015 - Present*
  - **Product Validation Tools**: Full-stack software engineer on the Intel Non-volatile Memory Solutions Group (NSG) Product Validation (PV) Tools Team building a green-field automated testing platform which orchestrates hardware validation testing for hundreds of systems. Built dockerized Python3 Flask REST API microservices, two Angular 1.6 front ends, and wrote SQL stored procedures for reporting. Received a Department Recognition Award for quickly implementing the automation engine and reporting. Responsible for training and mentoring new hires and interns.
  - **Reporting and Business Intelligence**: Managed over 20,000 new data points per month (some with over a gigabyte of metadata and logs) across several product lines. Wrote and maintained SQL SML and DML to create reports. Modernized existing Microsoft Excel solutions by building an Angular 1.6 web front end to display reports using d3.js. Created Python3 microservices to perform additional background processing on incoming data and events using RabbitMQ as a message bus. Worked with customers to determine use cases for new reports.
- **Intel** Folsom, CA
  Validation Software Engineer (Contract) *July 2014 - August 2015*
  - **Test Content Automation**: Wrote Python scripts for automating test content for hardware product validation. Implemented scripts which exercised and verified functionality of hardware features using proprietary and open source tools. Consolidated common logic into packages for reuse. Helped develop SQL stored procedures for initial Microsoft Excel reporting. Maintained an existing test result database built on ASP.NET MVC C#. Hired as full-time before contract expiration due to contributions to reporting codebase.
- **California Department of Transportation** Carmichael, CA
  Computer Vision Intern *July 2013 - May 2014*
  - **OpenCV Object Tracking Software**: Wrote a Python application which consumed up to six simultaneous video feeds of a common moving object to calculate the object's position in three dimensional space (i.e. a really cool way to figure out how tall to build a fences and nets to block rocks from falling on a roadway.) Learned to use OpenCV for image manipulation, object tracking, and feature extraction from video frames. Implemented an algorithm developed by a professor at the University of Maryland for finding the three dimensional position of a common object using it's two dimensional positions in the image and the three dimensional positions of each camera.

Education

- **UC Davis** Davis, GA
  Bachelor of Science in Computer Science; Minor in Mathematics; GPA 3.5 *2012 - 2014*
- **Santa Rosa Junior College** Santa Rosa, CA
  General Education; GPA 3.2 *2010 - 2012*

Projects

- **Game Development**: Used the Unity and Godot game engines to develop several small games in my free time. Exercised C# and design skills.

Programming Skills

- **Languages**: Python, SQL, JavaScript, C#, Go, Kotlin
- **Technologies**: Angular JS, Flask, Microsoft SQL Server, PostgreSQL, Docker, RabbitMQ, Splunk, Celery