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| **Melvyn**  **Drag** | 21 Dustin Rd Apt 2, Warner, NH 03278  603-724-1451  melvyniandrag@gmail.com  linkedin.com/in/melvyn-ian-drag-374613107/  melvyniandrag.github.io |
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I am looking for a demanding C++ / Python / Linux job.

# Skills

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| * Strong C++/Python/Linux coder. * Experience with distributed computing (MapReduce, Spark, MPI, GPU). * Skeptical by nature, love writing extensive tests to verify | * Strong knowledge of Math and Algorithms * Good at teaching and supporting junior colleagues. * PASSION for my job. This is my hobby as well. |

# Experience

### 02-2017 – Present

## Software Engineer / DEKA Research and Development, Manchester, NH

Working on a cutting edge medical device. Overhauled the Android-Linux Bluetooth communication layer of our software Rewrote the Linux side to use Bluez5 + Dbus. Rewrote the Android side to support new Android 8 security features. Wrote a C++ library to facilitate multithreaded access to a sqlite3 database and enforce time constraints of operations. Meticulously studied Openssl code and several other complex encryption libraries to verify functionality. Implemented encryption in our Bluetooth communications. Extensive documentation and unittesting work to satisfy government and internal requirements. Added multilingual support to several applications.

### 10-2015 – 02-2017

## Data Scientist/ Avlino, Holmdel, NJ

Lead data scientist at a start up focusing on extracting business value from terabytes of text data. Did web scraping and wrote Spark code to extract meaning. Many algorithms were not implemented yet in Spark and I had to study journal article and implement them. Discovered serious bugs in the Python NLTK package, submitted bug reports, but the bugs were too deeply rooted in the library to repair. Submitted a paper to arXiv about the problem. Maintained a Hadoop cluster; a couple of nodes were extremely problematic and required deep Linux knowledge to repair. Attended tech conferences on behalf of the company.   
  
  
  
  
01-2015 – 09-2015

## Researcher/ Battelle, Columbus, OH

Wrote scripts to reformat and port data between Microsoft Access, Oracle, and Postgres databases. Co-developer of Excel-based risk analysis tool coded in VBA. Co-developer of a more comprehensive risk tool written in R, C++ and MPI. Security Clearance. Presented research at in-house events.

### 09-2014 – 08-2015

## Instructor/ The Ohio State U., Columbus, OH

Taught summer classes in Python and numerical analysis. Taught Calculus during the school year.

### 09-2010 – 05-2013

## Math Tutor/ New Jersey City University, Jersey City, NJ

Tutored all levels of undergraduate mathematics from basic algebra to differential equations.

### 09-2010 – 05-2013

## Private Math Tutor/ New Jersey, New York

Tutored all types of students from high schoolers to professionals returning to school for MBAs.

# Education

### 04-2015

## Master of Mathematical Science in Computational Science/ Ohio State, Columbus, OH

3.8 GPA. 2 years of thesis research in the dynamics of epithelial tissue generation, deformation, and healing. Modeled tissue as a mesh with nodes and edges, and applied forces to the tissue via differential equations operating on the nodes. Wrote software to simulate the tissue and produce animations of responses to stimuli. Studied advanced algorithms, numerical and analytical solutions to PDEs, GPU programming and distributed computing. Received a 3 semester fellowship for my work in computational science. Travel grant to attend Scipy conference in Austin. Taught Calculus for one semester and received very good reviews from students.

### [MONTH Year]

## [Degree Title] / [School, Location]

[It’s okay to brag about your GPA, awards, and honors. Feel free to summarize your coursework too.]

# Activities

[Use this section to highlight your relevant passions, activities, and how you like to give back. It’s good to include Leadership and volunteer experiences here. Or show off important extras like publications, certifications, languages and more.]