Melvyn Drag

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EDUCATION

OHIO STATE UNIVERSITY
Master of Mathematical Science
2013-2015 | Columbus, OH
Specialty in Computational Science
Full Scholarship + Grants

NJCU
BA in Mathematics
2012 | Jersey City, NJ
Math, Science, Linguistics.
Full Scholarship

BAYONNE HIGH SCHOOL
2006 | Bayonne, NJ
AP Math, English, History

LINKS

Github:// **melvyniandrag**
LinkedIn:// **melvyn-ian-drag**
YouTube:// **Melvyn Drag**
Blog:// **melvyniandrag**
Instructables:// **MelvynD**

COURSEWORK

GRADUATE
Advanced Algorithms
Parallel Computing
Numerical PDEs
Computational Geometry
Analytical PDEs
Biological Simulation

UNDERGRADUATE
Differential Equations
Statistics
Linear Algebra
Etc.

SKILLS

PROGRAMMING
I Love Working in
C++ • Python • Vim • Linux • etc.

TALKS

PYTHON CONFERENCES
Solving the Heat Equation in Python
Intro to the DBus in Python

WORK EXPERIENCE

DEKA RESEARCH AND DEVELOPMENT | Software Engineer
Feb. 2017 - Present | Manchester, NH
- Medical Devices
- Wrote Linux/DBus/Bluez5/Android8 Bluetooth software
- Researched and wrote elliptic curve encryption code
- Overhauled whole stack to port from UTF-16 to UTF-8
- Wrote concurrent, resource contrained SQL library in C++
- Extensive unittesting and documentation

AVLINO | Data Scientist
Sep. 2015 - Feb. 2017 | Holmdel, NJ
- Researched algorithms, implemented in C++, Python and Spark
- Read and tweaked open source libraries to suit our needs
- Maintained hadoop cluster
- Produced business value from tera bytes of social media data
- Lead a team of junior devs. in software best practices

BATTELLE | Modeller
Jan. 2015 – Sep. 2015 | Columbus, OH
- Wrote and maintained terrorist risk analysis software in R, C++ and Excel VBA
- Ported Access DBs to Postres
- Prepared presentations for senior devs to deliver to government officials

RESEARCH

THE SOTOMAYOR LAB | Research Assistant
Jun. 2013 - Jul. 2015 | Columbus, OH
Researched the development and wound healing properties of epithelial tissues. Wrote C++/Python/Linux code to represent a tissue as a mesh of vertices and edges. Applied differential equations to the vertices and caused the tissue to deform in life-like ways. Studied the beautiful geometry of epithelial tissue.

RECENT PROJECTS & ACTIVITIES

MANCHESTER MAKERSPACE | Class Teacher, Maker
Robotics, microcontroller programming, 3d printing, and welding.

CALISTO STUDIOS | Founder
Website. Create and automatically grade math exams with comp. vis. Global summary stats. C++, Python, d3, OpenCV, docker, etc.

COLOR PLAYER PIANO | Maker
Made a piano that plays music by reading colors.

SWING BOT | Maker
Made a robot that swings. Uses an Arduino, accelerometer, servos, and swings like a child. Communicates over I2C.

HACKERRANK, PROJECT EULER, KAGGLE, ETC. | Participant
Maintiain strong coding skills through regular involvement in online contests and activites on hackerrank, Project Euler, Kaggle, and other sites.