JOHN MECHAM

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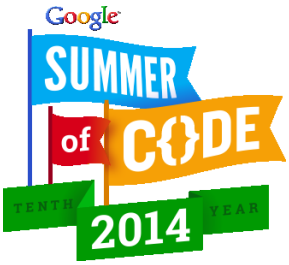
EDUCATION

University Of Maryland, College Park

- Bachelors in Computer Science
- Bachelors in Materials Engineering



SKILLS

Proficient Languages:
C/C++, Java, Python

Databases:
Postgres, DB2, Mongo

Web Frontend:
HTML/CSS, Javascript, Angular1.5, Angular2

Graphics Rendering:
OpenGL and GLSL Shader programming

AI:
Pathfinding, Genetic Algorithms, Neural Networks

RELEVANT WORK EXPERIENCE

Goldman Sachs Analyst – Middleware Engineering [February 2016 – Current]

- Engineering and positioning of internal database offerings for private cloud consumption
- Building of web based interfaces for self-service of database and messaging products
- Automation of provisioning and maintenance for Postgres and MongoDB databases

#JAVA #PYTHON #JAVASCRIPT # ANGULAR1.5 #DATABASESASASERVICE

Goldman Sachs Summer Analyst [May 2015 – August 2015]

- Performed requirement analysis for project based on profiling dataflow between different business units
- Designed domain model and corresponding restful services for web based interfaces and analytical displays

#JAVA #ANGULARJS #JAVASCRIPT #SQL #BALANCESHEETENGINEERING

Google Summer of Code 2014 [May 2014 – August 2014]

- Designed Voxel Terrain system for an open source game engine
- Utilized spatial data structures to compress volume data and decrease access time
- Developed isosurface extraction algorithm based on Dual Contour method
- Designed an evaluation engine for constructive solid geometry (CSG) expressions

#JAVA #VOLUMETRICTERRAIN #OPENGL #CSG #OPENSOURCE

Energy Research Lab - University Of Maryland [May 2014 – January 2015]

- Designed system to generate fittings for empirical potentials from quantum mechanical data
- Utilized parallelizable global optimization algorithms to generate the mentioned fittings
- Used VASP to test theoretical materials for use in batteries and fuel cells

#PYTHON #MATLAB #COMPUTATIONALMATERIALSCIENCE #MACHINELEARNING #SUPERCOMPUTING

PERSONAL PROJECTS

Reducto – An Article Summarizer [Fall 2016 – On Going]

- Abstractive article summarization based on machine learning methods
- Built with python (flask) and angular2
- Runs on AWS and Elastic Beanstalk
- Trained with Theano based on NAMAS and SSTT

PERSONAL PROJECTS

Java Game Engine [Spring 2012 – Winter 2013]

- Designed a server/client centric engine for real time gameplay in high latency environments (200+ ms)
- Featured its own voxel engine for destructible terrain
- Featured its own physics engine based on GJK and Conservative Advancement

For all mentioned projects and more please visit:
www.github.com/thewiselion or www.thewiselion.com