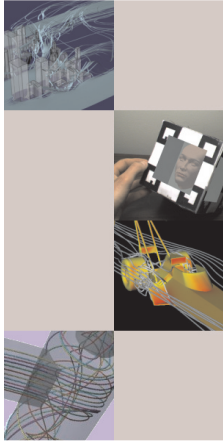


# Marcus Dillavou



2024 2nd Ave N  
Unit 1102  
Birmingham, AL 35203

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<http://line72.net>  
(205)-907-3475

## EDUCATION

*University Of Alabama at Birmingham  
Bachelor of Science in Computer Science  
Minor in Information Systems*

## WORK EXPERIENCE

*University Of Alabama at Birmingham June 03 - Current  
Programmer/Analyst*

*Duties include: developing visualization and simulation software under contracts with various clients and agencies (US Department of Defense, NASA, Alabama Department of Transportation, UAB Medical Center); applying for grants; research and education; presenting research at conferences; and occasional substitute teaching programming classes.*

### **MiniCAD**

*Geometry CAD and Grid Generator*

*Developed in C/C++, python, wxpython, OpenGL*

*Designed for building or importing geometry and generating grids for CFD simulations*

### **CaseMAN**

*Case Management software for preparing and managing large amounts of simulations*

*Developed in python, wxpython, and twisted*

*In production at DoD and NASA super computing centers*

### **Augmented Reality**

*System for adding in 3D content into the surgical view to aid surgeons*

### **Virtual Interactive Presence**

*Designed to allow experts to export their expertise to a remote site through virtual reality technologies*

*Currently being tested in veterinarian environment to aid in surgery*

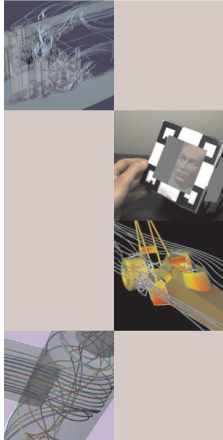
### **Bacteria Colony Counter**

*Image processing software to automatically count bacteria colonies on OPAs*

### **Scientific Visualizations**

*Regularly create scientific visualizations for simulations performed throughout the department to be displayed on our stereographic and high resolution tile displays.*

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## SKILLS

### *Programming Languages*

*C, C++, Python, Bash  
Java, C#, PHP  
Perl, Ruby, Lisp*

### *Operating Systems*

*Linux, Windows, OSX, Solaris, IRIX, FreeBSD*

### *Development Environments*

*gcc, mingw, cygwin, Xcode, Dev-CPP, Visual Studio .NET*

### *Libraries*

*OpenGL, SDL, wxpython, GTK+, fltk, OGRE, OpenAL, libAR*

### *Tools*

*emacs, vi, Maya, Blender*

## PUBLICATIONS

*Shih, A.M., Ross, D.H., Dillavou, M., Gopalsamy, S., and Soni, B.K., "A Geometry-Grid Generation Template Framework for Propellant Delivery System," 42nd AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Sacramento, CA, July, 2006.*

*Shih, A.M., Shum, P.C., Dillavou, M., Noack, R., Soni, B.K. and Power, G., "CaseMan: A Case Management Tool for CFD Applications," The DoD HPCMP Users Group Conference 2006, Denver, CO, June 26-29, 2006.*

## ACTIVITIES

### *Advisor/Founder UAB Game Developers Club*

*I founded and run the game developers club where I teach students all the different areas of game development from programming to art to gameplay. We have developed over 15 open source games including our urban game in which Verizon sponsored us to host it in New York.*

*Member of Birmingham Area Linux Users Group*

## PERSONAL PROJECTS

*In my spare time I contribute to open source projects or work on my own open source projects. My current personal project is a music organizer and recommender for finding new artists based on your current collection.*

## REFERENCES

*Available upon request.*