

# Fly Through A Pig's Heart: An Educational Computer Game



## Acknowledgements:

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- Virtual fly through the blood vessels of a pig's heart
- Detailed geometric 3-D model of a cardiovascular tree based on a CT-scanned specimen
- Game environment where player can freely roam around within the vascular system
- Collision with vessel walls or particles within blood stream result in audible as well as force feedback
- Player has to retrieve oxygen from erythrocytes in order to survive
- Point score is based on amount of oxygen collected
- Damage of player's *submarine* on contact with leukocytes resulting in loss of oxygen
- Input controls through Direct-X support virtually any gaming device
- Software system scalable to different visualization environments and data sets
- System successfully installed as exhibit at Discovery Science Center, Santa Ana, CA to be used by children age 4-9



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