Bereket Abraham

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EDUCATION

Carnegie Mellon University **Pittsburgh, PA**
Master of Science, Mechanical Engineering May 2017
Concentration: Controls and Automation
Selected Coursework: Nonlinear Controls, Mechatronics, Computer Vision, Engineering Computation
GPA: 3.9

Princeton University **Princeton, NJ**
Bachelor of Science in Engineering, Mechanical and Aerospace Engineering June 2013
Certificates in Applied and Computational Mathematics, Applications in Computing, and Robotics
Independent Projects: 3D Volumetric Display Technology, Simulation of Accelerating Fluid Flow
GPA: 3.1

WORK EXPERIENCE

NASA **Greenbelt, MD**
Mechanical Engineer Intern, Goddard Space Flight Center May 2016 – August 2016
- Worked under the systems engineering team for the GOES-R weather satellite mission. Analyzed requirements verification reports in order to assess readiness to launch.
- Developed a mission proposal for a spin-stabilized cubesat to lower costs for GOES-R on nonessential instruments.

AppNexus, Inc. **New York, NY**
Software Engineer, Web Services January 2015 – January 2016
- Implemented reporting features using C in core real-time web application to enhance ad buying product.
- Built out multiple web based API services in Java and PHP to decouple integration between systems.
- Built and maintained third party integrations with partner ad exchanges to unlock client spend.

Associate Technical Consultant, Global Services July 2013 – December 2014
- Consulted with employees, partners and clients throughout the online advertising industry on how to best utilize AppNexus technology and resources.
- Administered databases and servers, supported legacy code, developed best practices, integrated with third-party systems, and gathered requirements for the Services department.
- Ran alpha and beta test phases with clients to help the development of a new API features.
- Advised clients on the AppNexus data warehouse, reviewed different technologies for data storage, and wrote ETL scripts to help export certain datasets.

Florida State University **Tallahassee, FL**
Research Intern, Computational Fluids Laboratory June 2012 – March 2013
- Utilized CFD Fortran code in order to simulate low speed, unsteady flow around a cylinder, which has applications in small-scale flight, such as the bio-inspired flow of birds and fish.
- Began water tank experiments of cylinders using laser imagery (DPIV) to verify simulation results.

OTHER

Programming Languages: C, Java, Python, JavaScript, PHP, HTML, MySQL, Bash, MATLAB
Application Software: Pro-Engineering, OpenFOAM, Blender, LaTex, Git, SVN, JIRA, Salesforce
Skills: server administration, soldering, welding (novice), machining (novice)
Organizations: National Society of Black Engineers (2013 – 2016), CMU Robotics Club (2016), Toastmasters (2013 – 2015), Engineers Without Borders (2009 – 2011)
Presentations:
Abraham, B. & Fleury, L. (August 2016). *Rocket Powered Descent in R3*. Paper presented at the NSBE Aerospace Systems Conference, Arlington, VA.
Abraham, B., Taira, K. & Shih, C. (February 2013). *Low Reynolds number simulation of accelerating flow around 2D circular cylinders*. Poster session presented at the Emerging Researchers National Conference, Washington, DC.