16.885J/ESD.35J Student Bios – Fall 2003

Citation X Team

Amadine Denis (Courtesy of Amandine Denis.)

My name is Amandine Denis and I am 22 years old. I grew up in France, or more exactly in Normandy. After high school, I went to Paris where for two years I studied theoretical sciences: mathematics, electromagnetism, mechanics, and so on. Afterwards, I went to Ecole Polytechnique, where I started my training by serving 5 months in the French Navy on the aircraft carrier Charles de Gaulle. My majors at Polytechnique were Fluid Mechanics and Applied Mathematics. I am now in my first year at MIT where I plan to achieve a Masterâs degree in Aeronautics and Astronautics. My interests are mainly in Computational Fluid Mechanics and Aerodynamics.

David Gratton

Theresa Robinson (Courtesy of Theresa Robinson; Used with permission)

I am originally from a suburb of Vancouver, Canada. At the ages of sixteen and seventeen I earned my glider pilot's and private pilot's licenses through scholarships administered by the Royal Canadian Air Cadets. I attended the engineering science program at the University of Toronto, choosing the aerospace option for my third and fourth years. The summer before my final undergraduate year, I worked as a research assistant for Professor J.D. DeLaurier at the University of Toronto Institute for Aerospace Studies. The team in Professor DeLaurier's lab has designed, built, and is now taxi-testing a piloted engine-powered ornithopter. I took responsibility for the ornithopter's electronic system and helped with the taxi tests. For my master's thesis with Prof. DeLaurier, I wrote a flight simulator for the ornithopter, evaluated some proposed geometry changes, and recommended a takeoff strategy. I am now working with Prof. Karen Willcox and Bob Haimes in the area of multidisciplinary design optimization. Possible doctoral thesis topics include visualization for MDO and meshing strategies for multiple-fidelity analysis in the context of MDO.

Matthieu Serrano (Courtesy of Matthieu Serrano.)

I am a French student from the Ecole Polytechnique where I majored in "Fluid Mechanics" and "Engineering Sciences, Simulations and Modelling". My academic program was concluded by a three month internship that I spent working both at the USAF Academy and at Arizona State University on an internation research program around the C-130. My contribution to this program was to do a computional analysis of the C-130 in airdrop configurations. The goal was to assess the current computational tools in such turbulent flows and how they could be used in order to have a better understanding of the issues related to airdrops. These calculations were also made in order to see the benefits and constraints of computational analysis for the design of a

future airdrop aircraft. This work was concluded by a publication at the AIAA conference in Reno 2003 (AIAA 2003-0229).
As of last year, I am a Master's candidate in course 16. I am working as an RA in the ACDL where I am working on a lab wide project in order to do a next-generation modular finite element code. In this research under the supervision of Jaime Peraire, I work on the issues around obtaining higher order accuracy in finite element.

Patrick Freuler (Courtesy of Patrick Freuler.)

My name is Patrick Freuler, I am a new graduate student in the Aero/Astro department, working with Prof. Harris on the Silent Aircraft Initiative. I was born in Brazil and grew up in several countries, but I intend to return to Latin America when I finish my Masters. My plan is to eventually start an incubator business that will assist new technology ventures in the start-up phase. In my free time I enjoy playing the bass guitar, sailing on the Charles or a good round of squash.