

AUC SCHOLARSHIPS RECOGNISE Student INNOVATION

The AUC's efforts to promote the creative and often unrecognised efforts of students have paid off this year, with the awarding of three inaugural AUC Student Scholarships supporting three promising uni students and paving the way for a possible internship with Apple in the US.

Recipients come from across Australia and are each pursuing different areas of study related to their personal interests. Receipt of the scholarships – which include a 15" PowerBook, iSight camera, .MAC subscription, carry bag, ADC Student Membership, CodeWarrior and Xcode development tools as well as attendance at WWDC and the AUC Conference for the next 2 years -- will support their current efforts and give them valuable exposure to the technologies upon which they will rely in the future.

Wade Tregasakis, a La Trobe University student currently in the fourth year of his five-year combined Computer Science and Electronic Engineering course, hopes his exposure to Apple development expertise will provide new perspectives on his area of interest: peer-to-peer networking, security, and trusted internetworking, particularly across desktop platforms.

Tregasakis, who previously received an AUC Seeding Grant to support his work on building a distributed processing system, will use the scholarship to continue his work in this area. His projects included an International Space Station mission control simulator that distributed content between Linux or Mac OS X servers and more than a dozen client systems, and a more generic framework for distributed computing that builds on his work during the Seeding Grant.

"The social aspect of going to the AUC conference, meeting people, and working with the people in the AUC has significant interest for me," Wade says. "The equipment is great, particularly me being a typical poor student, but my interest is mainly in regards to hooking up with other developers. I've talked with the other recipients of the

scholarship, and one of them is working on a project on which we might collaborate."

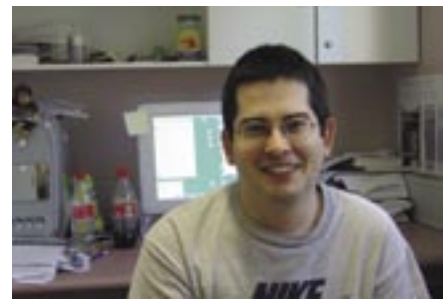
Brett Brooks, a PhD student at Central Queensland University in Rockhampton, is equally excited about receiving one of the AUC Student Scholarships. Specialising in the areas of groupware and collaboration, Brooks is focusing on the interfaces of online meetings to improve the natural interaction among large online groups. For example, an intelligent videoconferencing system might monitor sound levels during a multi-participant videoconference, shifting the focus of the user interface to reflect which people are talking at any given time.

Brett is building the collaboration system on top of the open-source Access Grid software. He develops under Mac OS X but builds the applications to run under Linux/Unix platforms as well.

A recipient of WWDC Scholarships in 2000 and 2003, Brett is well acquainted with the value of AUC support. He's eager both to access the new hardware and software that comes with the AUC Student Scholarship, and also to get back to Cupertino this year for WWDC 2005.

"The first year I went, it was completely mind-blowing," he recalls. "I floated around and looked at everything, and that got me heaps more interested in Mac development. The second time, I knew a bit more and was more specific in the areas I chose to go to. The resources this scholarship provides will open a lot more doors; I can't wait."

The third scholarship recipient is Ashley Butterworth, an Honours student in Computer Science at the University of NSW. Ashley has been developing on the Mac since OS 7 was the state-of-the-art, and is currently involved in a variety of projects including Audio Nomad, a sound processing system that recognises the orientation of a person's head and adjusts the sound it produces accordingly. Among other features, Audio Nomad includes a tool for converting Geostationary Positioning Satellite (GPS)



Photos: Above: Brett Brooks;
Below: Ashley Butterworth



signals and compass readings to measure position, pitch and roll.

Ashley's scholarship award is related to another project he's been working on, which involves the creation of a VHDL (Very High Speed IC Hardware Description Language) simulator for Mac OS X. VHDL is used by electronics engineers to design and test the operation of integrated circuits, and Ashley's application will fill a functional gap in existing software by providing what he envisions as a free, easy to use but highly capable simulator.

"I'm a bit of a hardware engineer as well as a developer, and it's a tool that I have really been needing for quite a while," says Ashley, who plans to build the system under Mac OS X on top of open-source GHDL libraries. "Universities use VHDL in many electronics courses, and it will be useful to any hardware engineers that want to do circuit designs for chips. It will be nice to have the latest technology [thanks to the AUC scholarship], and the extra access to things that the AUC offers will provide that little bit more to get better quality with more features that work better."

The AUC would like to thank Dr Kevin Suffern, of the University of Technology, Sydney, who will serve as the students' mentor throughout the scholarship program. Dr Suffern has a keen interest in the Macintosh development community, has written various ray tracing software, has written many papers and has presented at conferences internationally. He is looking forward to working with the students to maximise the value they obtain from the two-year scholarships.