

Beyond Boulder 2/17/14

Careers in Industry

Dennis Ebbets – Ball Aerospace, grad from APS at CU, PhD in Astrophysics and Heliophysics

At Ball there are about 200 PhDs, 700 Masters, 1200 Bachelors, and 400 Associates degrees. Most work on science missions takes place in Boulder. The primary Business areas are Earth sciences, solar system, Astrophysics, solar physics, and international programs. Largest customers are NASA and NOAA, universities, commercial companies, and Boeing. Most people who work at Ball were Engineering/Scientific disciplines (work in contracted programs, and R&D), or Management (program management or corporate management)

Examples of Jobs at Ball: optics, systems engineering, mission systems, detector development, software, modeling, intellectual property management (conferences, patents, publications), new business, project/corporate management

Publications are not needed in industry (like it is in academia), but it does happen for conferences more than refereed journals

Transferrable skills: coding (matlab, Simulink, IDL, mathematica), optics/electronics, understanding fundamental principles – reasoning, math, experiment design and execution, statistics, proposals, publications, teamwork, enthusiasm, communication

Careers in industry: less individual research, ordinary day-to-day, opportunities for promotion, organizations more fluid (move around to different projects, reorganization), good resources (labs, computers), salary/benefits (companies compete with each other)

Common entry paths: in descending order: job fairs, professional meetings, intern/co-op programs, personal contacts through existing programs, unsolicited resumes (~3000 per year)

Interns: Business majors, engineering, comp sci

Hiring Sequence: initial contact -> job fair, resume to HR, telephone interview, formal interview, HR paperwork, offer, negotiations

If you apply, apply for a particular position (of many particular positions), tailor a resume and cover letter for a position, customize with at most 2 pages, references not needed immediately
Research the company before you apply, different projects you would like to work on, or different departments

Culture at Ball: recognizable, intellectuals (8 of 10 in my dept have PhDs)

Can get internships between undergrad and grad, but only if going to grad school

No job will require more than a bachelor's degree but job experience translates to higher education, so 4yrs experience would be a PhD or 4 actual years of experience in industry somewhere else