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Benjamin Carter

Education

2013 - 2015 **Stanford University** Master of Science

- **Stanford ARPA-E Energy Behavior Initiative**: Product Lead, Research & Design
- **Stanford d.school Graduate**
- **PBL Lab**: Mentor and Cross-disciplinary Collaboration Advisor
- **PBL Lab: Structural Engineer:** Winning Team
- **Stanford Graduate Student Council:** Equipment Officer

2008 - 2011 **University of Canterbury, New Zealand** BE, First Class Honours

- **2012 WCTE Author**: *"Study of a high performance timber building"*
- **2011 Christchurch City Council Design Challenge:** First Prize + Travel Fellowship
- **Post-Tensioned Timber Research:** Seismic performance & feasibility study

Experience

2020 + **Independent Consultant** Boston/Los Angeles/Oakland/Seoul

Sr. Technology Analyst

- Technical consultant to two stealth-mode startups in the modular technology space
- Responsible for development of core technology product and analysis methods, reporting to CTO/CEO

2018 - 2020 **RAD Urban** Oakland

Sr. Structural Engineer

- Leadership role in engineering, serving as senior engineer across two high-rise modular projects.
- Technology development role focused on structural systems and assembly, reporting to CEO.

2018 **Katerra** San Francisco

Structural Automation + Systems Engineer

- Founding member of Systems Engineering + Automation team. Pitched CTO in week 1 for roadmap, vision for development path, and built out team to execute the project over Q3-Q4.

2015 - 2018 **Arup** San Francisco

Analyst - Advanced Technology + Research

- Digital fabrication champion, leading first use of additive manufacturing in billable work.
- Business case for 3D printing to support ideation and client communication. 2016 dFabnet attendee.
- Finite element analysis in LS-DYNA. Seismic nonlinear time history analysis of complex structures including the implementation of novel material models for concrete and masonry.
- Probabilistic seismic hazard analysis for large portfolios, such as UBC portfolio containing 300+ buildings.
- Automated the structural assessment of large portfolios using Julia, Python and LS-DYNA.
- Expanded collaboration with clients including BIG, Heatherwick, Foster + Partners, Snohetta, ZGF, WeWork.

2015 **EnergyNest** Stanford/Norway

Consultant - Business Development

- Represented Norwegian innovators' novel cost-leading energy storage technology entering the U.S. market.
- System level design thinking and financial modelling produced a business plan for new application space.

2014 **_Arup_** San Francisco

Intern - Advanced Technology + Research

- Collaboration with Bjarke Ingels Group, Heatherwick Studio, Foster and Partners.
- Materials research + curation: Biophilic, biomimetic and bio-based. Novel tensile polymers, carbon fiber.

2013 **_Beca Ltd_** Auckland, New Zealand

Graduate Structural Engineer

- Demonstrated technical analytical skills at scale through several large seismic assessments, including inspection, and reporting responsibilities. Communicated these technical outcomes in an accessible manner with clients through crafted overview documents supported with detailed reports.
- Highest productivity and profitability team throughout firm.

2011 - 2012 **_University of Canterbury_** Christchurch, New Zealand

Research Assistant

- Assistant to Ph.D. candidate, managing laboratory and practical stages of research.
- Design and procurement for test specimens, prediction of results in FEA and via proposed design methods.
- Self directed in a formal research environment, authoring reports for academia and funding sources.

2011 **_Traffic Design Group Ltd_** Christchurch, New Zealand

Research Intern

- Applied for and won grant funding for private transportation modelling research project.
- Responsible for project from problem statement to conclusion. Managed research schedule and deliverables.