

Ryan Emberling

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emberling.education

github.com/itsalaidbacklife

EDUCATION

Carnegie Mellon University School of Computer Science

Masters in Educational Technology and Learning Science – GPA 4.1

Pittsburgh PA

Graduation August 2019

Trinity College

Bachelor of Science in Mathematics and Philosophy – GPA 3.9

Hartford, CT

Graduation May 2013

Presidential Fellow for Philosophy, Phi Beta Kappa & Pi Mu Epsilon Honors Societies

WORK EXPERIENCE

Freudigman & Billings Educational Solutions

Westport, CT

Tutor and Educational Therapist

August 2017-August 2018 and August 2013-August 2015

- Tutored over 80 students in math, physics, programming, and test-preparation
- Profiled students' learning with diagnostic questioning and systematic variation to tailor teaching to student needs
- Worked with students to remediate memory systems and depth of processing
- Designed and ran week-long introductory programming course in Python
- Developed analytical tools for aggregating and analyzing test performance data with VBA in Excel

Leader Biomedical

Amsterdam, NL

Business Relations Officer

September 2015 - July 2017

- Managed design and development of NovoMem membrane from specification of user needs until initial testing
- Developed operational workflows and created corresponding Quality Management System (QMS) documentation for over 10 processes across every department, resulting in company's achievement of ISO 13485 certification
- Trained over 20 employees on QMS processes by developing and running workshops
- Created custom SQL queries and reports to track stock levels and expiration dates
- Digitized generation and analysis of QMS records (Non-Conformities, CAPAs)
- Built and maintained 3 multi-file database systems in Excel, with VBA to track sales forecasts, stock levels, and QMS performance metrics.

SKILLS

Web Development

HTML, CSS, Javascript, node.js, sails.js, angular, and angularJS

Data Science

Python with pandas, sklearn, and jupyter notebooks, Excel formulas, pivot tables, and VBA

Academic Projects

Carnegie Mellon University

Pittsburgh, PA

Dimensional Analysis Tutor – Fall 2018

- Intelligent Tutoring System teaches students with custom feedback and adaptively scaled scaffolding that breaks steps into sub-steps for struggling students (Built with Cognitive Tutor Authoring Tools aka CTAT)

Fraction Comparison Tutor – Fall 2018

- Cognitive Tutoring System uses individualized model of students' knowledge to appropriately interleave worked examples and self-explanation with decision making practice (Built with CTAT)

Cuttle Bot – Fall 2018

- Educational AI uses just-in-time feedback and move-reversibility to teach complex card game (built in angular)

Vascular Surgery of Lower Extremity for Plastic Surgeons – Fall 2018

- Hour-long educational module used at University of Pittsburgh Medical Center to teach core concepts of vascular surgery to plastic surgery residents (built on Open Learning Initiative platform)