Ryan Emberling
Educational Developer

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https://emberling.education
https://github.com/itsalaidbacklife

Work Experience

Freudigman & Billings   *Westport, CT*

Educational Therapist   Aug 2017- Aug 2018 and Aug 2013- Aug 2015

- Tutored 25 students per week in hour-long, 1-on-1 sessions in math, physics, chemistry, computer science, and test-prep
- Profiled students' learning with diagnostic questioning and varied instruction to tailor teaching to each student's needs
- Remediated students' memory systems and depth of processing with personalized learning regimens of exposition and practice
- Designed and ran week-long introductory python course
- Aggregated and analyzed test data from over 200 Excel files using VBA script to crawl server's directory structure

Leader Biomedical   *Amsterdam, NL*

Business Relations Officer   *Sep 2015 – July 2017*

- Managed a 10-person team to develop an implantable membrane from initial specification through verification testing
- Developed operational workflows and Quality Management System (QMS) documentation for over 10 interdepartmental processes, resulting in company's ISO 13485 certification
- Trained employees in over 10 workshops on QMS processes
- Automated generation and tracking, and analysis of over 100 QMS records with multi-file Excel system using VBA

Education

Carnegie Mellon University

Pittsburgh, PA   August 2019

Masters in Educational Technology and Applied Learning Science

Merit Scholarship – GPA 4.1/4.33

Trinity College

Hartford, CT   May 2013

BS in Mathematics and Philosophy

Presidential fellow for Philosophy

Summa Cum Laude – GPA 3.9/4.33

Skills

Learning Science

Backwards Curricular Design
Cognitive Task Analysis
Learning Curve Analysis

Web Development

HTML, CSS, Javascript, node.js, Sails.js, Angular, AngularJS, jQuery

Data Science

Python, NumPy, pandas, sklearn, Jupyter Notebooks; VBA (Excel)

Academic Projects

Dimensional Analysis Tutor (Individual Project: CTAT)   *CMU Fall 2018*

Developed Intelligent Tutoring System that adaptively reformats UI to break steps into sub-steps for struggling students

Fraction Comparison Tutor (Cognitive Tutor Authoring Tools)   *CMU Fall 2018*

Cognitive Tutoring System maintains a long-term model of students' knowledge to interleave decision-making practice with worked examples and self-explanation

E-Learning Module for Plastic Surgeons (Partner Project: OLI)   *CMU Fall 2018*

Created instructional content, co-designed efficacy study, and analyzed study results for hour-long educational module used at University of Pittsburgh Medical Center to teach core concepts of vascular surgery to 20 plastic surgery residents

Cuttle Bot (Partner Project: JS, Angular, Python, sklearn)   *CMU Fall 2018*

Developing JS/Python backend and co-creating Angular UI for Educational AI that implements machine learning, move-reversibility, and mixed-initiative feedback to teach complex card game (Project ongoing)

Course Design: Intro to Python (Individual Project: Processing.py)   *CMU Fall 2018*

Designed rigorously aligned course using novel approach to assessments through project-based learning