Ryan Dern

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EDUCATION

UNIVERSITY OF MASSACHUSETTS BOSTON
BS in Computer Science
Dec 2020 | Boston, MA
Cum. GPA: 3.4 / 4.0
Visual Attention Lab,
Competitive Programming,
Artificial Intelligence Association

SKILLS

Languages:
JavaScript • TypeScript • Java • C
C++ • C# • Python
Frameworks:
Node • Angular • Electron • OpenGL
Databases:
SQL • NoSQL • Oracle • MongoDB
ElasticSearch • MySQL
Cloud:
AWS • Lambda • API Gateway • EC2
S3 • Heroku • Docker • Kubernetes
Tools:
Git • Perforce • JIRA • VMWare
VirtualBox • Unix • Visual Studio
Etc:
REST • Jenkins • RabbitMQ
GemFire

SIDE PROJECTS

BILLBOT
A cloud-hosted Twitter bot created with Node.js that utilizes data from REST APIs to provide updates on bills currently being considered by United States Congress.

2DE
2D game and animation framework implementing sprites, resource management systems, particles, and shaders using C++ and OpenGL.

EXPERIENCE

FIDELITY INVESTMENTS | Software Engineering Intern
June 2019 - Present | Boston, MA
- Led a new dashboard page through analysis, design, and development that will provide users with quick access to statistical trading information as part of the Order Routing UI web application used by Fidelity Capital Markets.
- Developed the page using Angular/TypeScript, integrated it with our existing front-end and Java back-end and deployed into production.
- Collaborated with designers, traders, and analysts to refine requirements and establish an optimal user experience both in efficiency and visual appeal.
- Effectively contributed on schedule as a member of multiple Agile Scrum teams.
- Implemented SSO in an AWS deployed application using PingFederate and OpenID Connect.
- Built out architecture to deploy a demo of an SSO authentication flow using AWS Lambda functions, API Gateway, EC2 instances, and Load Balancers.

UMASS BOSTON VISUAL ATTENTION LAB | Research Assistant
March 2019 – Present | Boston, MA
- Developed a visual feedback application that interfaces with SR Research eye-tracking hardware using JavaScript, Electron, and WebGL, intended as an exercise to improve conditions for people with amblyopia (lazy eye), strabismus (crossed eyes), and ADHD.
- Collaborated with Prof. Marc Pomplun on design and development.
- Iterated on feedback from researchers in the medical field.

GOOGLE | J-Term Student
January 2019 | Cambridge, MA
- Completed a January term course focused on data structures, algorithms, and Android application development at Google's Cambridge, MA office.
- Collaborated with a small team of Computer Science students to develop a final project for the Android platform and presented our work to other students and Google employees in attendance.
- Took part in professional development workshops (Design Thinking, Presentation Skills, etc).

SONUS | Software Engineering Intern
Nov 2017 – Jan 2018 | Westford, MA
- Refactored C and C++ code to ensure platform tools used in embedded operating systems for session border controllers were compliant with security and performance standards.
- Performed code reviews with team members using CodeCollaborator.
- Learned DevOps best practices such as using Perforce, Jenkins, JIRA, and CodeCollaborator to seamlessly connect and automate parts of the development pipeline.