

Kevin Michael Castell

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Technologies and Skills

AWS Certified Associate Solutions Architect

- Languages: Typescript & Javascript, Python, C#, SQL, Java, R
- Technologies and Frameworks: Docker, React, Flask, Express, Node.js, Linux, Apollo GraphQL, Pulumi
- Design Principles: OOP, TDD, CI/CD, IaC, REST

Experience

NeuroPace: Full Stack Software and Systems Engineer, Data Strategy **July 2022 – Present**

- Defined user needs and requirements for several product releases complete with documentation.
- Gathered feedback from physicians to drive future product requirements and objectives.
- Drove tech-transfer process to promote AI/ML research tools into user facing production services.
- Managed project timelines, deliverables, and resourcing from start to finish.
- Decreased reliance upon 3rd party services leading to a \$150k/year reduction in overhead costs.
- Integrated statistical analysis into reactive components creating a simple and seamless UI.
- Refactored existing code base to handle new features and reduce future tech debt via TDD.
- Administered updates to server OS and packages to address security and maintainability concerns.
- Migrated legacy systems into micro-service based cloud infrastructure.
- Maintained existing research and clinical applications through bug fixes and enhancements.
- Navigated regulatory and legal requirements without sacrificing user experience or innovation.

Biomérieux - BioFire Diagnostics: Software Engineer, R&D Support **June 2020 – July 2022**

- Identified pain points within the product development pipeline to inspire future projects.
- Guided design decisions and best practices as tech lead for team of three developers and a tester.
- Reduced development overhead by contributing to IaC, DevOps pipelines, and internal packages.
- Employed cloud resources (AWS Batch, Lambda, SQS, S3) to increase scalability and decrease load.
- Revamped department hiring process to pinpoint high quality candidates and reduce potential biases.
- Designed robust full-stack architecture to support full CI/CD via Bitbucket Pipelines and Pulumi IaC.
- Implemented authentication, authorization, and user tracking using Azure AD and AWS CloudWatch.
- Debugged instrument firmware and participated in cross discipline code reviews with the R&D teams.

Thesis Project: Scientific Computing and Imaging Institute **October 2018 – May 2020**

- Incorporated academic research needs as well as clinical workflow into novel process.
- Presented project accomplishments via thesis paper and several scientific presentations.
- Developed OCR based algorithm leading to 10x increase in clinical data capture.
- Engineered graph database using Neo4J to provide key insights into patient data.

Sorenson Impact Center: Student Data Science Fellow **August 2019 – February 2020**

- Utilized data wrangling and statistical techniques to provide consulting for social impact organizations.
- Built interactive geospatial dashboards for efficient and effective data visualization.
- Shared findings with key stake holders and board members.

Education

University of Utah **August 2016 – May 2020**

BS Biomedical Engineering, Focused Coursework in Software Engineering and Data Science