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Denzal Martin

Full-Stack Software Developer

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Full-stack software developer with a recently obtained certificate in full-stack web development through the University of California, Berkeley Coding Bootcamp and a Master of Science in Physics from Stanford University. Eager to apply problem-solving techniques learned while doing Physics research to creating exceptional web applications. Practiced teamwork and project planning on three projects consisting of at least two other peers during the coding bootcamp. Testing assumptions and making sure conceptual ideas are clear is my approach to solving challenging problems.

EDUCATION

Certificate, Coding Bootcamp **June 2021 — Sept 2021**
University of California, Berkeley Extension

Master of Science, Physics **Aug. 2018 — June 2021**
Stanford University GPA: 3.2
*Performed more than 2.5 years of studies in Stanford Ph.D program before withdrawing

Bachelor of Science, Physics **Aug. 2014 — May 2018**
University of California, Merced GPA: 3.6

TECHNICAL SKILLS

Languages	JavaScript, HTML, CSS, PHP, Python, Java (University of California, Merced CSE 21), C++ (Stanford CS106B)
Tools	React.js, Vue.js, Handlebars.js, Node.js, Express.js, Sequelize, MongoDB, IndexedDB, Service Worker API
Lab Skills	LabVIEW, Direct-digital synthesis, soldering
Soft Skills	Teaching, Teamwork, Communication, Problem-Solving, Project Management

PROJECTS

Space Escape **Sept. 2021**
Github repo: https://github.com/pbyakod/space-escape|**Deployed link**: https://space-escape.herokuapp.com/

- Created a story based game with a space theme
- Developed back end API routes for retrieving a user's previous games from a SQL-based database
- Designed and developed code for managing React.js component rendering based on user inputs
- Clearly communicated to teammates how to integrate their React.js components into the existing structure.
- Setup authentication with JSON Web Tokens (JWT) by creating functions for specific fetch requests to our back end server and setup protected back end routes by verifying JWT from front end fetch requests
  Technologies used: Sequelize, Express.js, React.js, and Node.js

Event Architect **Aug. 2021**
Github repo: https://github.com/dmartin4820/event-architect|**Deployed link** https://stark-crag-36907.herokuapp.com/

- Created an app that was intended to allow a user to view public/private events that other members created.
- Conceptualized and setup models for database in Sequelize
- Implemented API routes using for getting database information and rendering on a page
- Incorporated third-party library, list.js, to provide search feature for events
  Technologies used: Handlebars, Node.js, JavaScript, Express.js, Heroku, Git, MySQL, Sequelize, Fetch API

Jam Map **July 2021**
Github repo: https://github.com/PDPco/jam-map| **Deployed link**: https://pdpco.github.io/jam-map/

- Developed front-end JavaScript to call iTunes' and GetSongBPM's API for generating a list of music that meets user selected criteria
- Created functions for displaying fetched data to template cards
  Technologies used: JavaScript, HTML, CSS, Fetch API

EXPERIENCE

Stanford University, Prof. Giorgio Gratta Research Group **Mar. 2019 — June 2021**
Research Assistant Stanford, CA

- Analyzed rotational and librational motion of optically levitated microsphere using Fourier and Hilbert transforms with SciPy
- Decreased data processing time by sacrificing space in memory and using Joblib to run functions on multiple similar datasets
- Designed Python helper functions to process raw signals from photodetector using the opt_lev_analysis library

University of California, Merced, Prof. Sayantani Ghosh Research Group **Oct. 2015 — May 2018**
Research Student Merced, CA

- Used LabView to perform 2-D spectroscopy scan of Mn doped ZnSe quantum dots.
- Created LabView program to control magnet and read data for Hanle effect measurement.
- Presented to peers and professors in MACES fellowship meetings.

University of Colorado, Boulder, Prof. Charles Rogers Research Group **Jun. 2017 — Aug. 2017**
Summer Research Student Colorado, CO

- Derived impedance expression of piezo actuator using Butterworth-Van Dyke model for testing
- Used SEM to study GaN nanowire mechanical response driven by a piezo actuator
- Fit amplitude response curves of GaN nanowires obtained from SEM measurements

NASA Langley Research Center **Jun. 2016 — Aug. 2016**
Summer Research Student Hampton, VA

- Developed a thermal purification apparatus for removing boron oxide impurities in boron nitride nanotubes (BNNT)
- Performed tests of BNNT and characterized the thermally treated samples with raman spectroscopy, FTIR, AFM, and SEM

Teaching

Teaching Assistant, PHYSICS 24: Electricity, Magnetism, and Optics Lab **Winter 2021**
Stanford University Stanford, CA

Teaching assistant, PHYSICS 21: Mechanics, Fluids Heat **Fall 2020**
Stanford University Stanford, CA

Teaching assistant, PHYSICS 24: Electricity Magnetism Lab **Spring 2020**
Stanford University Stanford, CA

Teaching assistant, PHYSICS 46: Light Heat Lab **Fall 2019**
Stanford University Stanford, CA

Teaching assistant, PHYSICS 26: Modern Physics Lab **Spring 2019**
Stanford University Stanford, CA