Daniel Van Der Maden

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EDUCATION

University of California, Berkeley   **Berkeley, CA**
B.A. Computer Science – GPA: 3.68/4.00   *December 2019 (Expected)*
○ *Areas of interest*: Natural Language Processing, Human-Computer Interaction, and Artificial Intelligence.

Irvine Valley College   **Irvine, CA**
Transferred – GPA: 3.92/4.00   *May 2017*

EXPERIENCE

Microsemi   **Aliso Viejo, CA**
Software Engineering Intern – Frequency and Timing Division   *May 2018 – August 2018*
○ Part of a team that worked on a modernized eLoran (radio navigation and data) system, which could function as a self-contained backup of a Global Navigation Satellite System (E.g: GPS).
○ Implemented multiple proprietary signal schemes and created an API to interface all of them with a custom transmission timer.
○ Shortened scheme implementation time by creating data collection and development tools for a custom transmission timer.

EECS Department, UC Berkeley   **Berkeley, CA**
Tutor – Self-Paced Center   *January 2019 – May 2019*
○ Improved student understanding by holding office hours for students learning C, C++, Java, and Python.
○ Graded projects and gave feedback that encouraged industry-ready practices. Also graded quizzes and final exams.

Academic Intern – Structure and Interpretation of Computer Programs Course   *August 2018 – December 2018*
○ Assisted course staff during lab sessions by conducting lab checkoffs and answering questions regarding lab content.
○ Fostered interest in Computer Science fundamentals by providing guidance/help on homeworks and projects during office hours.

"Computer Science Mentors" Student Organization, UC Berkeley   **Berkeley, CA**
Mentor – Designing Information Devices and Systems I   *January 2019 – May 2019*
○ Helped students solidify core EECS concepts by leading a supplemental 1.5 hour discussion section each week.
○ Mentored a cohort of five students throughout the semester and helped run large midterm review sessions.

J-Sei Community Center   **Emeryville, CA**
Technology Consultant for Seniors   *September 2017 – December 2017*
○ Effectively communicated with the elderly a verity of tech safety topics such as internet privacy and malware protection.

NOTABLE PROJECTS   *Full detailed list (with repo links) can be found on my website*

Easy Seq2Seq Chatbot – Personal Project
○ A chatbot that is implemented using a sequence to sequence model with an easy way to define training and model parameters.
○ It features a caching system, saving and loading models, interrupt recovery, memory efficient training, and multiple data filters.

Approximate Solver for a NP-Hard Problem – Efficient Algorithms Course Project
○ A polynomial time approximate solver that uses a greedy algorithm with various heuristics (each is considered, best is chosen).
○ Yielded solutions that were in the top 10% of all approximations in the course.

My Personal Website – Personal Project
○ A website that I created from scratch. It uses Bootstrap and jQuary to handle most of the styling and interactive components.

Concurrent Cached File Server – Machine Structures Course Project
○ A file server (written in Golang) that features a cache which can efficiently handle thousands of concurrent file requests.

Coreference Annotator – Natural Language Processing Course Project
○ Annotates the antecedent for each pronoun in a given dataset using a Logistic Regression model. 71% accuracy on test data.

SKILLS AND COURSEWORK

Courses: Database Systems (IP), UI/UX Design (IP), Computer Security (IP), Efficient Algorithms, Intro to Artificial Intelligence, Natural Language Processing, Intro to Linguistics, Machine Structures, Data Structures, Structure & Interpretation of Programs, Designing Information Devices, Linear Algebra & Differential Equations, Discrete Math & Probability Theory.
Programming Languages: Python, Java, C++, C, Golang, Scheme, RISC-V/x86, SQL, HTML, CSS, JavaScript, Latex
Technologies: Scipy/Numpy/Pandas, NLTK, Keras, Scikit-learn, Spark, OpenMP, Intel AVX, Bootstrap, MySQL, AWS EC2
Spoken Languages: Native English speaker, fluent in French, basic understanding of Vietnamese.