Michael Chen

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EDUCATION

University of California, Riverside (UCR) Gradating: 06/2026

B.S. in Computer Science, Minor in Business GPA: 3.76/4.0 (Dean's Honor List)

- Relevant Coursework: Data Structures & Algorithms, Software Engineering, Design and Architecture of Computer Systems, Operating Systems, Software Construction, Compiler Design, Discrete Math, Linear Algebra, Assembly and Machine Organization, Logic Design, Formal Automata, Cybersecurity, Differential Equations, Financial Accounting and Reporting

AWARDS

- University Program Award of AMD Pervasive AI Competition (9/2024)
- Sustainability Award Winners of Cutie Hack 2022 (11/2022)

TECHNICAL SKILLS

- **Certifications**: Stanford Unsupervised Learning, Recommenders, Reinforcement Learning; Supervised Machine Learning: Advanced Learning Algorithms; IBM Certified Specialist - SPSS Statistics Level 1 v2
- **Programming Languages**: Python, C/C++/C#, Java, GraphQL, SQL, JavaScript, TypeScript, HTML/CSS
- **Frameworks**: Backend (Spring, Flask, Node.js), Frontend (React.js, Next.js, Tailwind CSS, WPF), ML (PyTorch, TensorFlow), Arduino, SPSS Statistics
- **Database**: Postgres, MongoDB, Firebase
- **Machine Learning**: Supervised & Unsupervised Learning, Advanced Learning Algorithms, Reinforcement Learning
- **Technologies**: AMD cloud, Git, Windows, Linux, Docker, Jupyter Notebook, Microsoft Visual Studio, Eclipse

PROFESSIONAL EXPERIENCE

MOBIVOLT LLC| Software Engineer Intern & Part-Time, Livermore, CA 6/2023 – Present

- Developed applications using WPF and C# for real-time control and visualization of 16 parameters on a fuel processor and a Gas Chromatograph handling 50+ commands, boosting operational efficiency by 65%
- Developed firmware using Arduino and Python to monitor key hardware metrics (voltage, temperature, pressure, etc.), integrating GUI-based data exchange and implementing safety mechanisms (checksums) to ensure reliable communication and data integrity.
- Engineered advanced data processing algorithms for real-time visualization, including dynamic bucket sizing, enhanced extrema preservation, and adaptive filtering, improving measurement accuracy by 30% and maintaining high-fidelity signal representation while optimizing performance for extended time-series data

AI at UCR (AIR) | Founder/President, Riverside, CA 10/2023 – Present

- Founded UCR's first official AI club, expanding membership to **50**+ and boosting event attendance by 45% through workshops and expert-led guest lectures that strengthened academic and professional networks.
- Presented workshops and directed a team to disseminate AI news and opportunities, establishing the club as a key resource for AI education and career development on campus

SOFTWARE PROJECTS

PHiLIP: Personalized Human in Loop Image Production 11/2023 – 7/2024

- Awarded **the AMD University Program Award** at the AMD Pervasive AI Developer Contest**,** and presented the Phillip project to the AMD Advancing AI Event 2024 in San Francisco, with travel expenses sponsored by AMD.
- Led the design, development, and launch of Phillip, an AI-powered full-stack application that generates and enhances images from text descriptions, offering 71 styles for image improvement, user-guided refinement, and seamless model switching for optimal results. The project bridges advanced AI and accessible creative tools, empowering artists and designers with AI-driven solutions, leveraging AMD's cloud infrastructure and Instinct MI210 GPUs. Technologies: Generative AI, Python, PyTorch, Flask, React, Tailwind CSS, TypeScript, RESTful APIs, PixArt, Freestyle, ControlNet, Stable Diffusion.

News Genie: AI-Powered News Aggregator 2024

- Developed a full-stack news aggregator for personalized news recommendations and summaries with features including user authentication, preference management, and real-time news analysis. Technologies: Generative AI, React.js, Next.js, Flask, Firebase, Tailwind CSS, Framer Motion, and Axios for API requests.

MafWay: Handwritten Math Recognition 2023

- Developed a full-stack application that allows users to upload photos/sketches for accurate symbol recognition, achieving 98% cross validation accuracy for 82 symbols across 375,000+ images. Technologies: Convolutional Neural Network (CNN), Python, TensorFlow, Keras, Next.js, React.js, HTML/JavaScript/CSS

SplitSmart: Comprehensive Receipt Management System 2023

- Developed a system for users to upload, split, categorize, and manage receipts with OCR technology for automatic data extraction and secure storage. Technologies: Python, Flask, React, RESTful APIs and SQLite.

CAMPUS INVOLVEMENT

AI at UCR | Association for Computing Machinery | Cybersecurity | Gamespawn | American Marketing Association